*This is an unofficial Kindle version of Principles by Ray Dalio prepared by Evgeny Shadchnev (*evgeny@makersacademy.com*).*

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PRINCIPLES

BY RAY DALIO

What follows are three distinct parts that can be read either independently or as a connected whole. Part 1 is about the purpose and importance of having principles in general, having nothing to do with mine. Part 2 explains my most fundamental life principles that apply to everything I do. Part 3, explains my management principles as they are being lived out at Bridgewater. Since my management principles are simply my most fundamental life principles applied to management, reading Part 2 will help you to better understand Part 3, but it's not required—you can go directly to Part 3 to see what my management principles are and how Bridgewater has been run. One day I'd like to write a Part 4 on my investment principles. If you are looking to get the most bang for your buck (i.e., understanding for the effort), I suggest that you read Parts 1 and 2, and the beginning of Part 3 (through the Summary and Table of Principles) which will give you nearly the whole picture. It's only about 55 pages of a normal size book.

Above all else, I want you to think for yourself—to decide 1) what you want, 2) what is true and 3) what to do about it. I want you to do that in a clear-headed thoughtful way, so that you get what you want. I wrote this book to help you do that. I am going to ask only two things of you—1) that you be open-minded and 2) that you honestly answer some questions about what you want, what is true and what you want to do about it. If you do these things, I believe that you will get a lot out of this book. If you can't do these things, you should reflect on why that is, because you probably have discovered one of your greatest impediments to getting what you want out of life.

INTRODUCTION

Principles are concepts that can be applied over and over again in similar circumstances as distinct from narrow answers to specific questions. Every game has principles that successful players master to achieve winning results. So does life. Principles are ways of successfully dealing with the laws of nature or the laws of life. Those who understand more of them and understand them well know how to interact with the world more effectively than those who know fewer of them or know them less well. Different principles apply to different aspects of life—e.g., there are "skiing principles" for skiing, "parenting principles" for parenting, "management principles" for managing, "investment principles" for investing, etc—and there are over-arching "life principles" that influence our approaches to all things. And, of course, different people subscribe to different principles that they believe work best.

I am confident that whatever success Bridgewater and I have had has resulted from our operating by certain principles. Creating a great culture, finding the right people, managing them to do great things and solving problems creatively and systematically are challenges faced by all organizations. What differentiates them is how they approach these challenges. The principles laid out in the pages that follow convey our unique ways of doing these things, which are the reasons for our unique results. Bridgewater's success has resulted from talented people operating by the principles set out here, and it will continue if these or other talented people continue to operate by them. Like getting fit, virtually anyone can do it if they are willing to do what it takes.

What is written here is just my understanding of what it takes: my most fundamental life principles, my approach to getting what I want, and my "management principles," which are based on those foundations. Taken together, these principles are meant to paint a picture of a process for the systematic pursuit of truth and excellence and for the rewards that accompany this pursuit. I put them in writing for people to consider in order to help Bridgewater and the people I care about most.

Until recently, I didn't write out these principles because I felt that it was presumptuous for me to tell others what would work best for them. But over time, I saw the people who I cared about most struggling with problems and wanted to help them; I also found that their problems were almost always the result of violating one or more

of these principles, and that their problems could be solved by applying these principles. So I began writing down the types of problems and the broken principles that caused them. When I began, I didn't know how many principles I would end up with but, through this process, I discovered that about 200 principles pretty much cover all the problems.[1] I'm sure that I will come up with more as I learn more.

When I say that these are my principles, I don't mean that in a possessive or egotistical way. I just mean that they are explanations of what I personally believe. I believe that the people I work with and care about must think for themselves. I set these principles out and explained the logic behind them so that we can together explore their merits and stress test them. While I am confident that these principles work well because I have thought hard about them, they have worked well for me for many years, and they have stood up to the scrutiny of the hundreds of smart, skeptical people, I also believe that nothing is certain. I believe that the best we can hope for is highly probable. By putting them out there and stress testing them, the probabilities of their being right will increase.

I also believe that those principles that are most valuable to each of us come from our own encounters with reality and our reflections on these encounters – not from being taught and simply accepting someone else's principles. So, I put these out there for you to reflect on when you are encountering your realities, and not for you to blindly follow. What I hope for most is that you and others will carefully consider them and try operating by them as part of your process for discovering what works best for you. Through this exploration, and with their increased usage, not only will they be understood, but they will evolve from "Ray's principles" to "our principles," and Ray will fade out of the picture in much the same way as memories of one's ski or tennis instructor fade and people only pay attention to what works.[2] So, when digesting each principle, please...

...ask yourself: "Is it true?"

Before I discuss the management principles themselves, it's important for me to articulate my own most fundamental life principles because my management principles are an extension of them.

In Part 1, I explain what I mean by principles, why I believe they are important, and how they are essential for getting what you want out of life.

Part 2 explains my most fundamental life principles. I describe what I believe are the best ways of interacting with reality to learn what it's like, and how to most effectively deal with it to get what you want. I also discuss what I believe are the most common traps that people fall into that prevent them from getting what they want, and how people's lives can be radically better by avoiding them. I wrote this so you can better understand why my other principles are what they are, though you don't need to read this part to understand the others.

Part 3 is about my management principles. As I have run Bridgewater for more than 35 years, it explains Bridgewater's approach up till now. It begins at the big-picture, conceptual level, with an explanation of why I believe that any company's results are primarily determined by its people and its culture. It then drills down into what I believe are the important principles behind creating a great culture, hiring the right people, managing them to achieve excellence, solving problems systematically and making good decisions.

There are of course lots of other types of principles. For example, I hope to one day write about my investment principles. However, management principles are now what we need most, so here are the ones that I think make sense and have worked for me.

PART 1: THE IMPORTANCE OF PRINCIPLES

I believe that having principles that work is essential for getting what we want out of life. I also believe that to understand each other we have to understand each other's principles.[3] That is why I believe we need to talk about them.

We will begin by examining the following questions:

What are principles?

Why are principles important?

Where do principles come from?

Do you have principles that you live your life by? What are they?

How well do you think they will work, and why?

Answer all questions with complete honesty, without worrying what I or others might think. That honesty will allow you to be comfortable living with your own principles, and to judge yourself by how consistently you operate by them. If you don't have many well-thought-out principles, don't worry. We will get there together, if we remain open-minded.

1) WHAT ARE PRINCIPLES?

Your values are what you consider important, literally what you "value." Principles are what allow you to live a life consistent with those values. Principles connect your values to your actions; they are beacons that guide your actions, and help you successfully deal with the laws of reality. It is to your principles that you turn when you face hard choices.

2) WHY ARE PRINCIPLES IMPORTANT?

All successful people operate by principles that help them be successful. Without principles, you would be forced to react to circumstances that come at you without considering what you value most and how to make choices to get what you want. This would prevent you from making the most of your life. While operating without principles is bad for individuals, it is even worse for groups of individuals (such as companies) because it leads to people randomly bumping into each other without understanding their own values and how to behave in order to be consistent with those values.

3) WHERE DO PRINCIPLES COME FROM?

Sometimes we forge our own principles and sometimes we accept others' principles, or holistic packages of principles, such as religion and legal systems. While it isn't necessarily a bad thing to use others' principles—it's difficult to come up with your own, and often much wisdom has gone into those already created—***adopting pre-packaged principles without much thought exposes you to the risk of inconsistency with your true values***. Holding incompatible principles can lead to conflict between values and actions—like the hypocrite who has claims to be of a religion yet behaves counter to its teachings. Your principles need to reflect values you really believe in.

4) DO YOU HAVE PRINCIPLES THAT YOU LIVE YOUR LIFE BY? WHAT ARE THEY?

Your principles will determine your standards of behavior. When you enter into relationships with other people, your and their principles will determine how you interact. People who have shared values and principles get along. People who don't will suffer through constant misunderstandings and conflict with one another. Too often in relationships, people's principles are unclear. Think about the people with whom you are closest. Are their values aligned with yours?

What do you value most deeply?

5) HOW WELL DO YOU THINK THEY WILL WORK, AND WHY?

Those principles that are most valuable come from our own experiences and our reflections on those experiences. Every time we face hard choices, we refine our principles by asking ourselves difficult questions. For example, when our representatives in Washington are investigating whether various segments of society are behaving ethically, they are simultaneously grappling with questions such as, "Should the government punish people for bad ethics, or should it just write and enforce the laws?" Questions of this kind—in this case, about the nature of government—prompt thoughtful assessments of alternative approaches. These assessments in turn lead to principles that can be applied to similar occasions in the future. As another example, "I won't steal" can be a principle to which you refer when the choice of whether or not to steal arises. But to be most effective, each principle must be consistent with your values, and this consistency demands that you ask: Why? Is the reason you won't steal because you feel empathy for your potential victim? Is it because you fear getting caught? By asking such questions, we refine our understanding, and the development of our principles becomes better

aligned with our core values. To be successful, you must make correct, tough choices. You must be able to "cut off a leg to save a life," both on an individual level and, if you lead people, on a group level. And to be a great leader, it is important to remember that you will have to make these choices by understanding and caring for your people, not by following them.

You have to answer these questions for yourself. What I hope for most is that you will carefully consider the principles we will be exploring in this document and try operating by them, as part of the process of discovering what works best for you. In time, the answers to these questions will evolve from "Ray's principles" to "my principles," and "Ray" will fade from the picture in much the same way as memories of your ski instructor or basketball coach fade after you have mastered the sport.

So, as I believe that adopting pre-packaged principles without much thought is risky, I am asking you to join me in thoughtfully discussing the principles that guide how we act. When considering each principle, please ask yourself, ***"Is it true?"*** While this particular document will always express just what I believe, other people will certainly have their own principles, and possibly even their own principles documents, and future managers of Bridgewater will work in their own ways to determine what principles Bridgewater will operate by. At most, this will remain as one reference of principles for people to consider when they are deciding what's important and how to behave.

Part 2: My Most Fundamental Life Principles

Time is like a river that will take you forward into encounters with reality that will require you to make decisions. You can't stop the movement down this river, and you can't avoid the encounters. You can only approach these encounters in the best way possible.

That is what this part is all about.

Where I'm Coming From

Since we are all products of our genes and our environments and approach the world with biases, I think it is relevant for me to tell you a bit of my background so that you can know where I'm coming from.

I grew up in a middle-class neighborhood on Long Island, the only son of a jazz musician and a stay-at- home mom. I was a very ordinary kid, and a less-than-ordinary student. I liked playing with my friends — for example, touch football in the street—and I didn't like the school part of school, partly because I had, and still have, a bad rote memory[4] and partly because I couldn't get excited about forcing myself to remember what others wanted me to remember without understanding what all this work was going to get me. In order to be motivated, I needed to work for what I wanted, not for what other people wanted me to do. And in order to be successful, I needed to figure out for myself how to get what I wanted, not remember the facts I was being told to remember.

One thing I wanted was spending money. So I had a newspaper route, I mowed lawns, I shoveled the snow off driveways, I washed dishes in a restaurant, and, starting when I was 12 years old, I caddied.

It was the 1960s. At the time the stock market was booming and everyone was talking about it, especially the people I caddied for. So I started to invest. The first stock I bought was a company called Northeast Airlines, and the only reason I bought it was that it was the only company I had heard of that was trading for less than $5 per share, so I could buy more shares, which I figured was a good thing. It went up a lot. It was about to go broke but another company acquired it, so it tripled. I made money because I was lucky, though I didn't see it that way then. I figured that this game was easy. After all, with thousands of companies listed in the newspaper, how difficult could it be to find at least one that would go up? By comparison to my other jobs, this way of making money seemed much more fun, a lot easier, and much more lucrative. Of course, it didn't take me long to lose

money in the markets and learn about how difficult it is to be right and the costs of being wrong.

So what I really wanted to do now was beat the market. I just had to figure out how to do it. The pursuit of this goal taught me:

1) It isn't easy for me to be confident that my opinions are right. In the markets, you can do a huge amount of work and still be wrong.

2) Bad opinions can be very costly. Most people come up with opinions and there's no cost to them. Not so in the market. This is why I have learned to be cautious. No matter how hard I work, I really can't be sure.

3) The consensus is often wrong, so I have to be an independent thinker. To make any money, you have to be right when they're wrong.

So ...

...1) I worked for what I wanted, not for what others wanted me to do. For that reason, I never felt that I had to do anything. All the work I ever did was just what I needed to do to get what I wanted. Since I always had the prerogative to not strive for what I wanted, I never felt forced to do anything.

...2) I came up with the best independent opinions I could muster to get what I wanted. For example, when I wanted to make money in the markets, I knew that I had to learn about companies to assess the attractiveness of their stocks. At the time, Fortune magazine had a little tear-out coupon that you could mail in to get the annual reports of any companies on the Fortune 500, for free. So I ordered all the annual reports and worked my way through the most interesting ones and formed opinions[5] about which companies were exciting.

...3) I stress-tested my opinions by having the smartest people I could find challenge them so I could find out where I was wrong.[6] I never cared much about others' conclusions—only for the reasoning that led to these conclusions. That reasoning had to make sense to me. Through this process, I improved my chances of being right, and I learned a lot from a lot of great people.

...4) I remained wary about being overconfident, and I figured out how to effectively deal with my not knowing. I dealt with my not knowing by either continuing to gather information until I reached the point that I could be confident or by eliminating my exposure to the

risks of not knowing.[7]

…5) I wrestled with my realities, reflected on the consequences of my decisions, and learned and improved from this process.

By doing these things, I learned how important and how liberating it is to think for myself.

In a nutshell, this is the whole approach that I believe will work best for you—the best summary of what I want the people who are working with me to do in order to accomplish great things. ***I want you to work for yourself, to come up with independent opinions, to stress-test them, to be wary about being overconfident, and to reflect on the consequences of your decisions and constantly improve.***

After I graduated from high school, I went to a local college that I barely got in to. I loved it, unlike high school, because I could learn about things that interested me; I studied because I enjoyed it, not because I had to.

At that time the Beatles had made a trip to India to learn how to meditate, which triggered my interest, so I learned how to meditate. It helped me think more clearly and creatively, so I'm sure that enhanced my enjoyment of, and success at, learning.[8] Unlike in high school, in college I did very well.

And of course I continued to trade markets. Around this time I became interested in trading commodities futures, though virtually nobody traded them back then. I was attracted to trading them just because they had low margin requirements so I figured I could make more money by being right (which I planned to be).

By the time I graduated college, in 1971, I had been admitted to Harvard Business School, where I would go in the fall. That summer between college and HBS I clerked on the floor of the New York Stock Exchange. This was the summer of the breakdown of the global monetary system (i.e., the Bretton Woods system). It was one of the most dramatic economic events ever and I was at the epicenter of it, so it thrilled me. It was a currency crisis that drove all market behaviors, so I delved into understanding the currency markets. The currency markets would be important to me for the rest of my life.

That fall I went to Harvard Business School, which I was excited about because I felt that I had climbed to the top and would be with the best of the best. Despite these high expectations, the place was even better than I expected because the case study method allowed open-ended

figuring things out and debating with others to get at the best answers, rather than memorizing facts. I loved the work-hard, play-hard environment.

In the summer between my two years at HBS, I pursued my interest in trading commodities futures by convincing the Director of Commodities for Merrill Lynch to give me a job as his assistant. At the time, commodities trading was still an obscure thing to do.

In the fall I went back to HBS, and in that academic year, 1972-73, trading commodities futures became a hot thing to do. That is because the monetary system's breakdown that occurred in 1971 led to an inflationary surge that sent commodity prices higher. As a result of this, the first oil shock occurred in 1973. As inflation started to surge, the Federal Reserve tightened monetary policy to fight it, so stocks went down in the worst bear market since the Great Depression. So, commodities futures trading was hot and stock market investing was not. Naturally, brokerage houses that didn't have commodities trading departments wanted them, and there was a shortage of people who knew anything about it. Virtually nobody in the commodities futures business had the type of Harvard Business School background that I had. So I was hired as Director of Commodities at a moderate-size brokerage and given an old salt who had lots of commodities brokerage experience to help me set up a commodities division. The bad stock market environment ended up taking this brokerage house down before we could get the commodities futures trading going. I went to a bigger, more successful brokerage, where I was in charge of its institutional/hedging business. But I didn't fit into the organization well, so I was fired essentially for insubordination.

So in 1975, after a quick two-year stint on Wall Street after school, I started Bridgewater. Soon after, I got married and began my family.

Through this time and till now I followed the same basic approach I used as a 12-year-old caddie trying to beat the market, i.e., by ***1) working for what I wanted, not for what others wanted me to do; 2) coming up with the best independent opinions I could muster to move toward my goals; 3) stress- testing my opinions by having the smartest people I could find challenge them so I could find out where I was wrong; 4) being wary about overconfidence, and good at not knowing; and 5) wrestling with reality, experiencing the results of my decisions, and reflecting on what I did to produce them so that I could improve.***

Since I started Bridgewater, I have gained a lot more experience that

taught me a lot more, mostly by making mistakes and learning from them. Most importantly:

> I learned that failure is by and large due to not accepting and successfully dealing with the realities of life, and that achieving success is simply a matter of accepting and successfully dealing with all my realities.
>
> I learned that finding out what is true, regardless of what that is, including all the stuff most people think is bad—like mistakes and personal weaknesses—is good because I can then deal with these things so that they don't stand in my way.
>
> I learned that there is nothing to fear from truth. While some truths can be scary—for example, finding out that you have a deadly disease—knowing them allows us to deal with them better. Being truthful, and letting others be completely truthful, allows me and others to fully explore our thoughts and exposes us to the feedback that is essential for our learning.
>
> I learned that being truthful was an extension of my freedom to be me. I believe that people who are one way on the inside and believe that they need to be another way outside to please others become conflicted and often lose touch with what they really think and feel. It's difficult for them to be happy and almost impossible for them to be at their best. I know that's true for me.
>
> I learned that I want the people I deal with to say what they really believe and to listen to what others say in reply, in order to find out what is true. I learned that one of the greatest sources of problems in our society arises from people having loads of wrong theories in their heads—often theories that are critical of others—that they won't test by speaking to the relevant people about them. Instead, they talk behind people's backs, which leads to pervasive misinformation. I learned to hate this because I could see that making judgments about people so that they are tried and sentenced in your head, without asking them for their perspective, is both unethical and unproductive.[9] So I learned to love real integrity (saying the same things as one believes)[10] and to despise the lack of it.[11]
>
> I learned that everyone makes mistakes and has weaknesses and that one of the most important things that differentiates people is their approach to handling them. I learned that there is an incredible beauty to mistakes, because embedded in each mistake is a puzzle, and a gem that I could get if I solved it, i.e., a

principle that I could use to reduce my mistakes in the future. I learned that each mistake was probably a reflection of something that I was (or others were) doing wrong, so if I could figure out what that was, I could learn how to be more effective. I learned that wrestling with my problems, mistakes, and weaknesses was the training that strengthened me. Also, I learned that it was the pain of this wrestling that made me and those around me appreciate our successes.[12]

I learned that the popular picture of success—which is like a glossy photo of an ideal man or woman out of a Ralph Lauren catalog, with a bio attached listing all of their accomplishments like going to the best prep schools and an Ivy League college, and getting all the answers right on tests—is an inaccurate picture of the typical successful person. I met a number of great people and learned that none of them were born great—they all made lots of mistakes and had lots weaknesses—and that great people become great by looking at their mistakes and weaknesses and figuring out how to get around them. So I learned that the people who make the most of the process of encountering reality, especially the painful obstacles, learn the most and get what they want faster than people who do not. I learned that they are the great ones—the ones I wanted to have around me.

In short, I learned that being totally truthful, especially about mistakes and weaknesses, led to a rapid rate of improvement and movement toward what I wanted.

While this approach worked great for me, I found it more opposite than similar to most others' approaches, which has produced communications challenges. Specifically, I found that:

While most others seem to believe that learning what we are taught is the path to success, I believe that figuring out for yourself what you want and how to get it is a better path.[13]

While most others seem to believe that having answers is better than having questions, I believe that having questions is better than having answers because it leads to more learning.[14]

While most others seem to believe that mistakes are bad things, I believe mistakes are good things because I believe that most learning comes via making mistakes and reflecting on them.

While most others seem to believe that finding out about one's weaknesses is a bad thing, I believe that it is a good thing because

it is the first step toward finding out what to do about them and not letting them stand in your way.

While most others seem to believe that pain is bad, I believe that pain is required to become stronger.[15]

One of the advantages of my being over 60 years old—and there aren't many—is that we can look back on my story to see how I came by these beliefs and how they have worked for me. It is now more than 35 years after I started Bridgewater and about the same number of years since I got married and began my family. I am obviously not your Ralph Lauren poster child for success, yet I've had a lot of successes, though they're probably not what you're thinking.

Yes, I started Bridgewater from scratch, and now it's a uniquely successful company and I am on the Forbes 400 list. But these results were never my goals—they were just residual outcomes—so my getting them can't be indications of my success. And, quite frankly, I never found them very rewarding.[16]

What I wanted was to have an interesting, diverse life filled with lots of learning—and especially meaningful work and meaningful relationships. I feel that I have gotten these in abundance and I am happy. And I feel that I got what I wanted by following the same basic approach I used as a 12-year-old caddie trying to beat the market, i.e., by 1) working for what I wanted, not for what others wanted me to do; 2) coming up with the best independent opinions I could muster to move toward my goals; 3) stress- testing my opinions by having the smartest people I could find challenge them so I could find out where I was wrong; 4) being wary about overconfidence, and good at not knowing; and 5) wrestling with reality, experiencing the results of my decisions, and reflecting on what I did to produce them so that I could improve. I believe that by following this approach I moved faster to my goals by learning a lot more than if I hadn't followed it.

Here are the most important principles that I learned along the way.

My Most Fundamental Principles

In pursuing my goals I encountered realities, often in the form of problems, and I had to make decisions. I found that if I accepted the realities rather than wished that they didn't exist and if I learned how to work with them rather than fight them, I could figure out how to get to my goals. It might take repeated tries, and seeking the input of others, but I could eventually get there. As a result, I have become someone who believes that we need to deeply understand, accept, and

work with reality in order to get what we want out of life. Whether it is knowing how people **really** think and behave when dealing with them, or how things **really** work on a material level—so that if we do X then Y will happen—understanding reality gives us the power to get what we want out of life, or at least to dramatically improve our odds of success. In other words, I have become a "hyperrealist."

When I say I'm a hyperrealist, people sometimes think I don't believe in making dreams happen. This couldn't be further from the truth. In fact, I believe that without pursuing dreams, life is mundane. I am just saying that I believe hyperrealism is the best way to choose and achieve one's dreams. The people who really change the world are the ones who see what's possible and figure out how to make that happen. I believe that dreamers who simply imagine things that would be nice but are not possible don't sufficiently appreciate the laws of the universe to understand the true implications of their desires, much less how to achieve them.

Let me explain what I mean.

I believe there are an infinite number of laws of the universe and that all progress or dreams achieved come from operating in a way that's consistent with them. These laws and the principles of how to operate in harmony with them have always existed. We were given these laws by nature. Man didn't and can't make them up. He can only hope to understand them and use them to get what he wants. For example, the ability to fly or to send cellular phone signals imperceptibly and instantaneously around the world or any other new and beneficial developments resulted from understanding and using previously existing laws of the universe. These inventions did not come from people who were not well-grounded in reality.[17] The same is true for economic, political, and social systems that work. Success is achieved by people who deeply understand reality and know how to use it to get what they want. The converse is also true: idealists who are not well-grounded in reality create problems, not progress. For example, communism was a system created by people with good intentions who failed to recognize that their idealistic system was inconsistent with human nature. As a result, they caused more harm than good.

This brings me to my most fundamental principle:

Truth

—more precisely, an accurate understanding of reality—

is the essential foundation for producing good outcomes.

While I spend the most time studying how the realities that affect me most work—i.e., those that drive the markets and the people I deal with—I also love to study nature to try to figure out how it works because, to me, nature is both beautiful and practical.

Its perfection and brilliance staggers me. When I think about all the flying machines, swimming machines, and billions of other systems that nature created, from the microscopic level to the cosmic level, and how they interact with one another to make a workable whole that evolves through time and through multi- dimensions, my breath is taken away. It seems to me that, in relation to nature, man has the intelligence of a mold growing on an apple—man can't even make a mosquito, let alone scratch the surface of understanding the universe.

Though how nature works is way beyond man's ability to comprehend, I have found that observing how nature works offers innumerable lessons that can help us understand the realities that affect us. That is because, though man is unique, he is part of nature and subject to most of the same laws of nature that affect other species.

For example, I have found that by looking at what is rewarded and punished, and why, universally—i.e., in nature as well as in humanity —I have been able to learn more about what is "good" and "bad" than by listening to most people's views about good and bad. It seems to me that what most people call "good" and "bad" typically reflects their particular group's preferences: the Taliban's definitions are different than Americans', which are different than others'—and within each group there are differences and they are intended to paint a picture of the world the way they'd like it to be rather than the way it really is. So there are many different takes on what is good and bad that each group uses to call others "bad" and themselves "good," some of which are practical and others of which are impractical. Yet all of them, and everything else, are subject to the same laws of nature–i.e., I believe that we all get rewarded and punished according to whether we operate in harmony or in conflict with nature's laws, and that all societies will succeed or fail in the degrees that they operate consistently with these laws.

This perspective gives me a non-traditional sense of good and bad: "good," to me, means operating consistently with the natural laws, while "bad" means operating inconsistently with these laws. In other words, for something to be "good" it must be grounded in reality. And if something is in conflict with reality—for example, if morality is in conflict with reality—it is "bad," i.e., it will not produce good

outcomes.

In other words, I believe that understanding what is good is obtained by looking at the way the world works and figuring out how to operate in harmony with it to help it (and yourself) evolve. But it is not obvious, and it is sometimes difficult to accept.

For example, when a pack of hyenas takes down a young wildebeest, is this good or bad? At face value, this seems terrible; the poor wildebeest suffers and dies. Some people might even say that the hyenas are evil. Yet this type of apparently evil behavior exists throughout nature through all species and was created by nature, which is much smarter than I am, so before I jump to pronouncing it evil, I need to try to see if it might be good. When I think about it, like death itself, this behavior is integral to the enormously complex and efficient system that has worked for as long as there has been life. And when I think of the second- and third-order consequences, it becomes obvious that this behavior is good for both the hyenas, who are operating in their self-interest, and in the interests of the greater system, which includes the wildebeest, because killing and eating the wildebeest fosters evolution, i.e., the natural process of improvement. In fact, if I changed anything about the way that dynamic works, the overall outcome would be worse.

I believe that evolution, which is the natural movement toward better adaptation, is the greatest single force in the universe, and that it is good. *[18]* It affects the changes of everything from all species to the entire solar system. It is good because evolution is the process of adaptation that leads to improvement. So, based on how I observe both nature and humanity working, I believe that what is bad and most punished are those things that don't work because they are at odds with the laws of the universe and they impede evolution.

I believe that the desire to evolve, i.e., to get better, is probably humanity's most pervasive driving force. Enjoying your job, a craft, or your favorite sport comes from the innate satisfaction of getting better. Though most people typically think that they are striving to get things (e.g., toys, better houses, money, status, etc.) that will make them happy, that is not usually the case. Instead, when we get the things we are striving for, we rarely remain satisfied.[19] It is natural for us to seek other things or to seek to make the things we have better. In the process of this seeking, we continue to evolve and we contribute to the evolution of all that we have contact with. The things we are striving for are just the bait to get us to chase after them in order to make us evolve, and it is the evolution and not the reward

itself that matters to us and those around us.

It is natural that it should be this way—i.e., that our lives are not satisfied by obtaining our goals rather than by striving for them—because of the law of diminishing returns.[20] For example, suppose making a lot of money is your goal and suppose you make enough so that making more has no marginal utility. Then it would be foolish to continue to have making money be your goal. People who acquire things beyond their usefulness not only will derive little or no marginal gains from these acquisitions, but they also will experience negative consequences, as with any form of gluttony. So, because of the law of diminishing returns, it is only natural that seeking something new, or seeking new depths of something old, is required to bring us satisfaction.

In other words, the sequence of 1) seeking new things (goals); 2) working and learning in the process of pursuing these goals; 3) obtaining these goals; and 4) then doing this over and over again is the ***personal evolutionary process*** that fulfills most of us and moves society forward.

I believe that ***pursuing self-interest in harmony with the laws of the universe and contributing to evolution is universally rewarded***, and what I call "good." Look at all species in action: they are constantly pursuing their own interests and helping evolution in a symbiotic way, with most of them not even knowing that their self-serving behaviors are contributing to evolution. Like the hyenas attacking the wildebeest, successful people might not even know if or how their pursuit of self-interest helps evolution, but it typically does.[21]

Self-interest and society's interests are generally symbiotic: more than anything else, it is pursuit of self- interest that motivates people to push themselves to do the difficult things that benefit them and that contribute to society. In return, society rewards those who give it what it wants. That is why how much money people have earned is a rough measure of how much they gave society what it wanted—NOT how much they desired to make money. Look at what caused people to make a lot of money and you will see that usually it is in proportion to their production of what the society wanted and largely unrelated to their desire to make money. There are many people who have made a lot of money who never made making a lot of money their primary goal. Instead, they simply engaged in the work that they were doing, produced what society wanted, and got rich doing it.[22] And there are many people who really wanted to make a lot of money but never produced what the society wanted and they didn't make a lot of

money. In other words, there is an excellent correlation between giving society what it wants and making money, and almost no correlation between the desire to make money and how much money one makes. I know that this is true for me—i.e., I never worked to make a lot of money, and if I had I would have stopped ages ago because of the law of diminishing returns. I know that the same is true for all the successful, healthy (i.e., non-obsessed) people I know.[23]

This process of productive adaptation—i.e., the process of seeking, obtaining, and pursuing new goals— does not just pertain to how individuals and society move forward. It is equally relevant when dealing with setbacks, which are inevitable. That is why many people who have had setbacks that seemed devastating at the time ended up as happy as (or even happier than) they were before, once they successfully adapted to them. The faster that one appropriately adapts, the better. As Darwin described, adaptation—i.e., adjusting appropriately to changes in one's circumstances—is a big part of the evolutionary process, and it is rewarded.[24] That is why some of the most successful people are typically those who see the changing landscape and identify how to best adapt to it.[25]

So, it seems to me that desires to evolve are universal and so are symbiotic relationships that lead to the evolution of the whole to occur via the pursuit of individuals' self-interests. However, what differentiates man from other species is man's greater ability to learn. Because we can learn, we can evolve more and faster than other species.

I also believe that all things in nature have innate attributes that are both good and bad, with their goodness and their badness depending on what they are used for. For example, the thorns on a rose bush, the stinger on a bee, the aggressiveness of a lion, the timidity of a gazelle are all both good and bad, depending on their applications. Over time, nature evolves toward the right balance through the process of natural selection—e.g., an overly aggressive animal will die prematurely, as will an overly timid animal. However, because man has the ability to look at himself and direct his own change, individuals have the capacity to evolve.

Most of us are born with attributes that both help us and hurt us, depending on their applications, and the more extreme the attribute, the more extreme the potential good and bad outcomes these attributes are likely to produce. For example, highly creative, goal-oriented people who are good at imagining the big picture often can easily get tripped up on the details of daily life, while highly

pragmatic, task-oriented people who are great with the details might not be creative. That is because the ways their minds work make it difficult for them to see both ways of thinking. In nature everything was made for a purpose, and so too were these different ways of thinking. They just have different purposes. It is extremely important to one's happiness and success to know oneself—most importantly to understand one's own values and abilities—and then to find the right fits. We all have things that we value that we want and we all have strengths and weaknesses that affect our paths for getting them. ***The most important quality that differentiates successful people from unsuccessful people is our capacity to learn and adapt to these things.***

Unlike any other species, man is capable of reflecting on himself and the things around him to learn and adapt in order to improve. He has this capability because, in the evolution of species man's brain developed a part that no other species has—the prefrontal cortex. It is the part of the human brain that gives us the ability to reflect and conduct other cognitive thinking. Because of this, people who can objectively reflect on themselves and others —most importantly on their weaknesses are—can figure out how to get around these weaknesses, can evolve fastest and come closer to realizing their potentials than those who can't.

However, typically defensive, emotional reactions—i.e., ego barriers—stand in the way of this progress. These reactions take place in the part of the brain called the amygdala. As a result of them, most people don't like reflecting on their weaknesses even though recognizing them is an essential step toward preventing them from causing them problems. Most people especially dislike others exploring their weaknesses because it makes them feel attacked, which produces fight or flight reactions; however, having others help one find one's weaknesses is essential because it's very difficult to identify one's own. Most people don't like helping others explore their weaknesses, even though they are willing to talk about them behind their backs. For these reasons most people don't do a good job of understanding themselves and adapting in order to get what they want most out of life. In my opinion, that is the biggest single problem of mankind because it, more than anything else, impedes people's abilities to address all other problems and it is probably the greatest source of pain for most people.

Some people get over the ego barrier and others don't. Which path they choose, more than anything else, determines how good their outcomes are. Aristotle defined tragedy as a bad outcome for a person

because of a fatal flaw that he can't get around. So it is tragic when people let ego barriers lead them to experience bad outcomes.

The Personal Evolutionary Process

As I mentioned before, I believe that life consists of an enormous number of choices that come at us and that each decision we make has consequences, so ***the quality of our lives depends on the quality of the decisions we make.***

We aren't born with the ability to make good decisions; we learn it. [26] We all start off as children with others, typically parents, directing us. But, as we get older, we increasingly make our own choices. We choose what we are going after (i.e., our goals), which influences our directions. For example, if you want to be a doctor, you go to med school; if you want to have a family, you find a mate; and so on. As we move toward our goals, we encounter problems, make mistakes, and run into personal weaknesses. Above all else, how we choose to approach these impediments determines how fast we move toward our goals.

I believe that the way we make our dreams into reality is by constantly engaging with reality in pursuit of our dreams and by using these encounters to learn more about reality itself and how to interact with it in order to get what we want—and that if we do this with determination, we almost certainly will be successful. In short:

Reality
+
Dreams
+
Determination
=
A Successful Life

So what is success? I believe that it is nothing more than getting what you want—and that it is up to you to decide what that is for you. I don't care whether it's being a master of the universe, a couch potato, or anything else—I really don't. What is essential is that you are clear about what you want and that you figure out how to get it.

However, there are a few common things that most people want.

As I mentioned, for most people success is evolving as effectively as possible, i.e., learning about oneself and one's environment and then changing to improve. Personally, I believe that personal evolution is both the greatest accomplishment and the greatest reward.

Also, for most people happiness is much more determined by how things turn out relative to their expectations rather than the absolute level of their conditions. For example, if a billionaire loses $200 million he will probably be unhappy, while if someone who is worth $10 thousand unexpectedly gets another $2 thousand, he will probably be happy. This basic principle suggests that you can follow one of two paths to happiness: 1) have high expectations and strive to exceed them, or 2) lower your expectations so that they are at or below your conditions. Most of us choose the first path, which means that to be happy we have to keep evolving.

Another principle to keep in mind is that people need meaningful work and meaningful relationships in order to be fulfilled.[27]I have observed this to be true for virtually everyone, and I know that it's true for me.[28]

Regardless of others' principles, you will need to decide for yourself what you want and go after it in the best way for you.

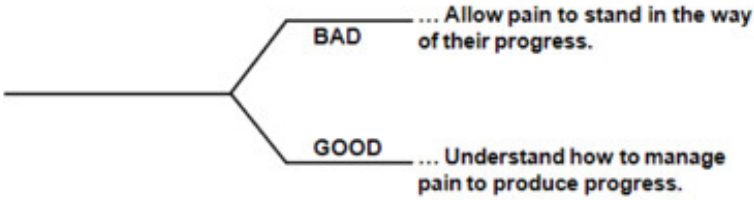
Your Most Important Choices

As I mentioned, as we head toward our goals we encounter an enormous number of choices that come at us, and each decision we make has consequences. So***, the quality of our lives depends on the quality of the decisions we make.*** We literally make millions of decisions that add up to the consequences that are our lives.

Of these millions, I believe that there are five big types of choices that we continually must make that radically affect the quality of our lives and the rates at which we move toward what we want. Choosing well is not dependent on our innate abilities such as intelligence or creativity, but more on what I think of as character. For this reason, I believe that most people can make the right choices.

The following five decision trees show these choices. I believe that those who don't move effectively to their goals do the things on the top branches, and those who do move to them most quickly do the things on the bottom branches.

First:



It is a fundamental law of nature that to evolve one has to push one's limits, which is painful, in order to gain strength—whether it's in the form of lifting weights, facing problems head-on, or in any other way. Nature gave us pain as a messaging device to tell us that we are approaching, or that we have exceeded, our limits in some way. At the same time, nature made the process of getting stronger require us to push our limits. Gaining strength is the adaptation process of the body and the mind to encountering one's limits, which is painful. In other words, both pain and strength typically result from encountering one's barriers. When we encounter pain, we are at an important juncture in our decision- making process.

Most people react to pain badly. They have "fight or flight" reactions to it: they either strike out at whatever brought them the pain or they try to run away from it. As a result, they don't learn to find ways around their barriers, so they encounter them over and over again and make little or no progress toward what they want.[29]

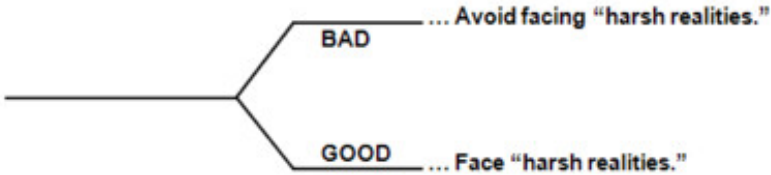
Those who react well to pain that stands in the way of getting to their goals—those who understand what is causing it and how to deal with it so that it can be disposed of as a barrier—gain strength and satisfaction. This is because most learning comes from making mistakes, reflecting on the causes of the mistakes, and learning what to do differently in the future. Believe it or not, you are lucky to feel the pain if you approach it correctly, because it will signal that you need to find solutions and to progress. Since the only way you are going to find solutions to painful problems is by thinking deeply about them—i.e., reflecting[30]—if you can develop a knee-jerk reaction to pain that is to reflect rather than to fight or flee, it will lead to your rapid learning/evolving.[31]

So, please remember that:

Pain + Reflection = Progress

How big of an impediment is psychological pain to your progress?

Second:



People who confuse what they wish were true with what is really true create distorted pictures of reality that make it impossible for them to make the best choices. They typically do this because facing "harsh realities" can be very difficult. However, by not facing these harsh realities, they don't find ways of properly dealing with them. And because their decisions are not based in reality, they can't anticipate the consequences of their decisions.[32]

In contrast, ***people who know that understanding what is real is the first step toward optimally dealing with it make better decisions.***

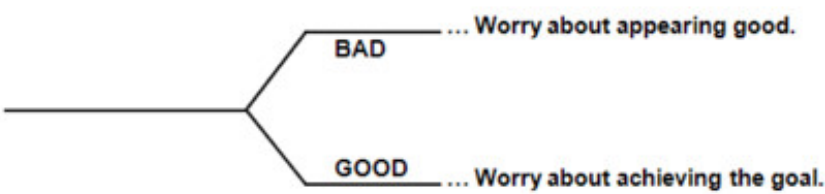
So, remember...

Ask yourself, "Is it true?"

...because knowing what is true is good.

How much do you let what you wish to be true stand in the way of seeing what is really true?

THIRD:



People who worry about looking good typically hide what they don't know and hide their weaknesses, so they never learn how to properly deal with them and these weaknesses remain impediments in the future.[33] These people typically try to prove that they have the answers, even when they really don't. Why do they behave in this unproductive way? They typically believe the senseless but common view that great people are those who have the answers in their heads and don't have weaknesses. Not only does this view not square with

reality, but it also stands in the way of progress.

I have never met a great person who did not earn and learn their greatness.[34] They have weaknesses like everyone else—they have just learned how to deal with them so that they aren't impediments to getting what they want. In addition, the amounts of knowledge and the capabilities that anyone does not have, and that could be used to make the best possible decisions, are vastly greater than that which anyone (no matter how great) could have within them.[35]

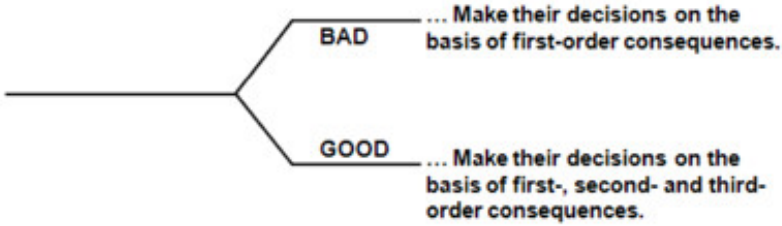
This explains ***why people who are interested in making the best possible decisions rarely are confident that they have the best possible answers.*** So they seek to learn more (often by exploring the thinking of other believable people, especially those who disagree with them) and they are eager to identify their weaknesses so that they don't let these weaknesses stand in the way of them achieving their goals.

So, what are your biggest weaknesses? Think honestly about them because if you can identify them, you are on the first step toward accelerating your movement forward. So think about them, write them down, and look at them frequently.

One of my biggest weaknesses is my poor rote memory: I have trouble remembering things that don't have reasons for being what they are, such as names, phone numbers, spelling, and addresses. Also, I am terrible at doing tasks that require little or no logic, especially if I have to do them repeatedly. On the other hand, I have a great contextual memory and good logic, and I can devote myself to things that interest me for untold hours. I don't know how much of what I am bad at is just the other side of what I am good at—i.e., how much of what I am good at is due to my brain working in a certain way that, when applied to certain tasks, does well and when applied to others does poorly—and how much of what I am good at was developed in order to help compensate for what I am bad at. But I do know that I have created compensating approaches so that what I am bad at doesn't hurt me much; e.g., I surround myself with people who have good rote memories who do the things that I am bad at, and I carry around tools like my BlackBerry.

How much do you worry about looking good relative to actually being good?

FOURTH:


BAD
... Make their decisions on the basis of first-order consequences.
GOOD
... Make their decisions on the basis of first-, second- and third-order consequences.

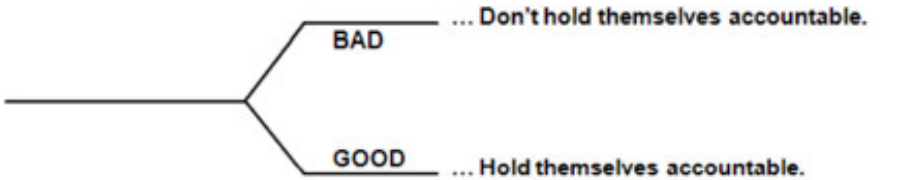
People who overweigh the first-order consequences of their decisions and ignore the effects that the second- and subsequent-order consequences will have on their goals rarely reach their goals. *[36]* This is because first-order consequences often have opposite desirabilities from second-order consequences, resulting in big mistakes in decision-making. For example, the first-order consequences of exercise (pain and time-sink) are commonly considered undesirable, while the second-order consequences (better health and more attractive appearance) are desirable. Similarly, food that tastes good is often bad for you and vice versa, etc. If your goal is to get physically fit and you don't ignore the first-order consequences of exercise and good-tasting but unhealthy food and connect your decisions with their second- and third-order consequences, you will not reach your goal.

Quite often the first-order consequences are the temptations that cost us what we really want, and sometimes they are barriers that stand in our way of getting what we want. It's almost as though the natural selection process sorts us by throwing us trick choices that have both types of consequences and penalizing the dummies who make their decisions just on the basis of the first-order consequences alone.

By contrast, people who choose what they really want, and avoid the temptations and get over the pains that drive them away from what they really want, are much more likely to have successful lives.

How much do you respond to 1st order consequences at the expense of 2nd and 3rd order consequences?

Fifth:



People who blame bad outcomes on anyone or anything other than themselves are behaving in a way that is at variance with reality, and subversive to their progress.

Blaming bad outcomes on anyone or anything other than one's self is essentially wishing that reality is different than it is, which is silly.[37] And it is subversive because it diverts one's attention away from mustering up the personal strength and other qualities that are required to produce the best possible outcomes.

Successful people understand that bad things come at everyone and that it is their responsibility to make their lives what they want them to be by successfully dealing with whatever challenges they face.[38] Successful people know that nature is testing them, and that it is not sympathetic.[39]

How much do you let yourself off the hook rather than hold yourself accountable for your success?

In summary, I believe that you can probably get what you want out of life if you can suspend your ego and take a no-excuses approach to achieving your goals with open-mindedness, determination, and courage, especially if you rely on the help of people who are strong in areas that you are weak.

If I had to pick just one quality that those who make the right choices have, it is character. Character is the ability to get one's self to do the difficult things that produce the desired results. In other words, I believe that for the most part, achieving success—whatever that is for you—is mostly a matter of personal choice and that, initially, making the right choices can be difficult. However, because of the law of nature that pushing your boundaries will make you stronger, which will lead to improved results that will motivate you, the more you operate in your "stretch zone," the more you adapt and the less character it takes to operate at the higher level of performance. So, if you don't let up on yourself, i.e., if you operate with the same level of

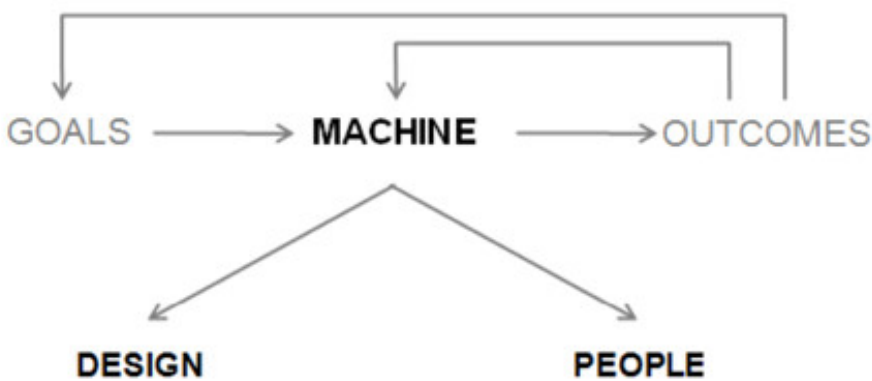
"pain," you will naturally evolve at an accelerating pace. Because I believe this, I believe that whether or not I achieve my goals is a test of what I am made of. It is a game that I play, but this game is for real. In the next part I explain how I go about playing it.

In summary, ***I don't believe that limited abilities are an insurmountable barrier to achieving your goals, if you do the other things right.***

As always, it is up to you to ask yourself if what I am saying is true. As the next part delves into this concept more, you might want to reserve your judgment until after you have read it.

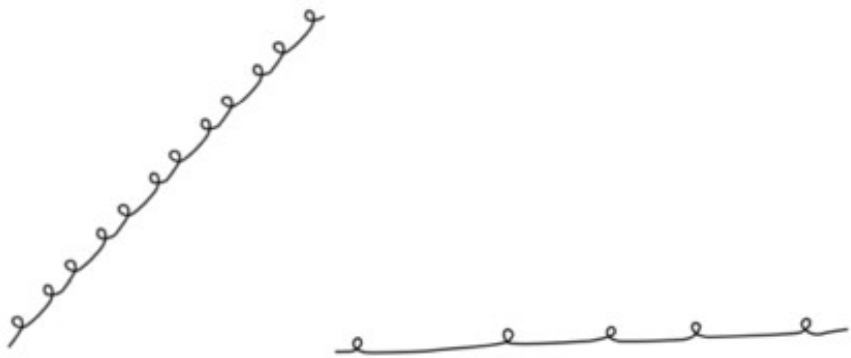
Your Two Yous and Your Machine

Those who are most successful are capable of "higher level thinking" —i.e., they are able to step back and design a "machine" consisting of the right people doing the right things to get what they want. They are able to assess and improve how their "machine" works by comparing the outcomes that the machine is producing with the goals. Schematically, the process is as shown in the diagram below. It is a feedback loop:

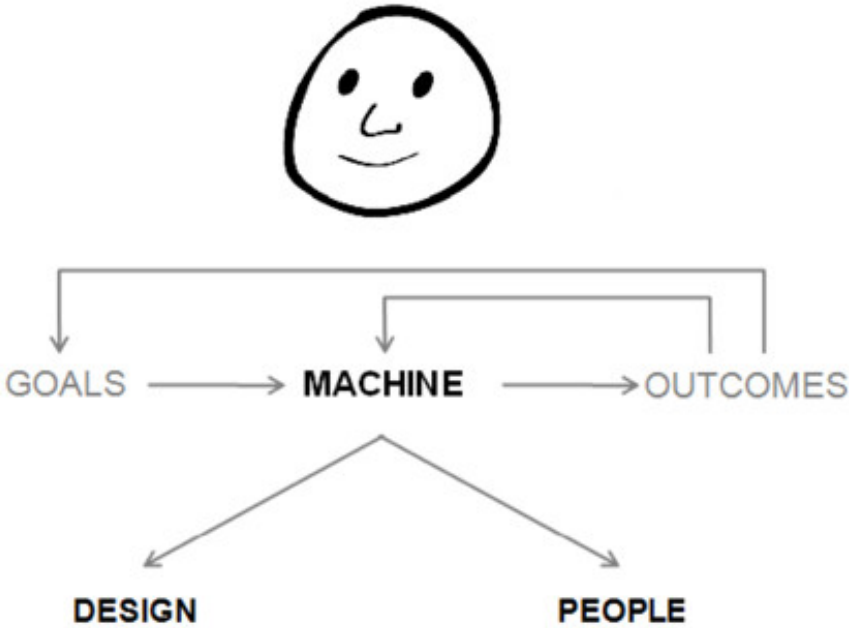


That schematic is meant to convey that your goals will determine the "machine" that you create to achieve them; that machine will produce outcomes that you should compare with your goals to judge how your machine is working. Your "machine" will consist of the design and people you choose to achieve the goals. For example, if you want to take a hill from an enemy you will need to figure out how to do that—e.g., your design might need two scouts, two snipers, four infantrymen, one person to deliver the food, etc. While having the right design is essential, it is only half the battle. It is equally

important to put the right people in each of these positions. They need different qualities to play their positions well—e.g., the scouts must be fast runners, the snipers must be precise shots, etc. If your outcomes are inconsistent with your goals (e.g., if you are having problems), you need to modify your "machine," which means that you either have to modify your design/culture or modify your people. Do this often and well and your improvement process will look like the one on the left and do it poorly and it will look like the one on the right, or worse:



I call it "higher level thinking" because your perspective is of one who is looking down on at your machine and yourself objectively, using the feedback loop as I previously described. In other words, your most important role is to step back and design, operate and improve your "machine" to get what you want.



Think of it as though there are two yous—you as the designer and overseer of the plan to achieve your goals (let's call that one you(1)) and you as one of the participants in pursuing that mission (which we will call you(2)). You(2) are a resource that you(1) have to get what you(1) want, but by no means your only resource. To be successful you(1) have to be objective about you(2).

Let's imagine that your goal is to have a winning basketball team. Wouldn't it be silly to put yourself in a position that you don't play well? If you did, you wouldn't get what you want. Whatever your goals are, achieving them works the same way.

If you(1) see that you(2) are not capable of doing something, it is only sensible for you(1) to have someone else do it. In other words, you(1) should look down on you(2) and all the other resources at your(1) disposal and create a "machine" to achieve your(1) goals, remembering that you(1) don't necessarily need to do anything other than to design and manage the machine to get what you(1) want. If you(1) find that you(2) can't do something well **fire yourself**(2) and get a good replacement! You shouldn't be upset that you found out that you(2) are bad at that—you(1) should be happy because you(1) have improved your(1) chances of getting what you(1) want. If you(1) are disappointed because you(2) can't be the best person to do everything, you(1) are terribly naïve because nobody can do

everything well.

The biggest mistake most people make is to not see themselves and others objectively. If they could just get around this, they could live up to their potentials.

How much do you intellectually agree with what I just said?

How good are you in approaching life as a "higher level thinker" rather than as a doer?

How much would you like to get better at this?

How much do you think that reading this is a waste of time?

My 5-Step Process to Getting What You[40] Want Out of Life

There are five things that you have to do to get what you want out of life. First, you have to ***choose your goals***, which will determine your direction. Then you have to ***design a plan*** to achieve your goals. On the way to your goals, you will ***encounter problems***. As I mentioned, these problems typically cause pain. The most common source of pain is in exploring your mistakes and weaknesses. You will either react badly to the pain or react like a master problem solver. That is your choice. To figure out how to get around these problems you must be calm and analytical to accurately ***diagnose your problems***. Only after you have an accurate diagnosis of them can you ***design a plan that will get you around your problems***. Then you have to do ***the tasks*** specified in the plan. Through this process of encountering problems and figuring out how to get around them, you will become progressively more capable and achieve your goals more easily. Then you will set bigger, more challenging goals, in the same way that someone who works with weights naturally increases the poundage. This is the process of personal evolution, which I call my 5-Step Process.

In other words, "The Process" consists of five distinct steps:

Have clear goals.

Identify and don't tolerate the problems that stand in the way of achieving your goals.

Accurately diagnose these problems.

Design plans that explicitly lay out tasks that will get you around your problems and on to your goals.

Implement these plans—i.e., do these tasks.

You need to do all of these steps well in order to be successful.

Before discussing these individual steps in more detail, I want to make a few general points about the process.

> ***1) You must approach these as distinct steps rather than blur them together.*** For example, when setting goals, just set goals (don't think how you will achieve them or the other steps); when diagnosing problems, just diagnose problems (don't think about how you will solve them or the other steps). Blurring the steps leads to suboptimal outcomes because it creates confusion and short-changes the individual steps. Doing each step thoroughly will provide information that will help you do the other steps well, **since the process is iterative.**
>
> ***2) Each of these five steps requires different talents and disciplines.*** Most probably, you have lots of some of these and inadequate amounts of others. If you are missing any of the required talents and disciplines, that is not an insurmountable problem because you can acquire them, supplement them, or compensate for not having them, if you ***recognize your weaknesses and design around them.*** So you must be honestly self-reflective.
>
> ***3) It is essential to approach this process in a very clear-headed, rational way rather than emotionally.*** Figure out what techniques work best for you; e.g., if emotions are getting the better of you, take time out until you can reflect unemotionally, seek the guidance of calm, thoughtful others, etc.

To help you do these things well—and stay centered and effective rather than stressed and thrown off by your emotions—try this technique for reducing the pressure: ***treat your life like a game*** or a martial art. Your mission is to figure out how to get around your challenges to get to your goals. In the process of playing the game or practicing this martial art, you will become more skilled. As you get better, you will progress to ever-higher levels of the game that will require—and teach you—greater skills. I will explain what these skills are in the next section. However, ***the big and really great news is that you don't need to have all of these skills to succeed!*** You just have to 1) know they are needed; 2) know you don't have some of them; and 3) figure out how to get them (i.e., either learn them or work with others who have them).

This particular game—i.e., your life—will challenge you in ways that will be uncomfortable at times. But if you work through this discomfort and reflect on it in order to learn, you will significantly improve your chances of getting what you want out of life. ***By and large, life will give you what you deserve and it doesn't give a damn what you "like." So it is up to you to take full responsibility to connect what you want with what you need to do to get it, and then to do those things—which often are difficult but produce good results—so that you'll then deserve to get what you want.***

That's just the way it is, so you might as well accept it. Once you accept that playing the game will be uncomfortable, and you do it for a while, it will become much easier (like it does when getting fit). When you excel at it, you will find your ability to get what you want thrilling. You'll see that excuses like "That's not easy" are of no value and that it pays to "push through it" at a pace you can handle. Like getting physically fit, the most important thing is that you keep moving forward at whatever pace you choose, recognizing the consequences of your actions. When you think that it's too hard, remember that in the long run, doing the things that will make you successful is a lot easier than being unsuccessful. The first- order consequences of escaping life's challenges may seem pleasurable in the moment, but the second- and third-order consequences of this approach are your life and, over time, will be painful. With practice, you will eventually play this game like a ninja, with skill and a calm centeredness in the face of adversity that will let you handle most of your numerous challenges well.

However, you will never handle them all well: mistakes are inevitable, and it's important to recognize and accept this fact of life. The good news, as I have mentioned, is that most learning comes through making mistakes—so there is no end to learning how to play the game better. You will have an enormous number of decisions to make, so no matter how many mistakes you make, there will be plenty of opportunities to build a track record of success.

That's basically the whole concept. Let's pause and reflect on this before moving on.

Does what I am saying make sense to you?

Do you agree that it is true?

If not, why not?

If you can't work through your doubts alone, speak to me or to others

about it, but PLEASE do not proceed until you agree with the basic logic behind the 5-Step Process. Either you will get comfortable with it and internalize it or you will point out something that is wrong and the process will get better.

What follows now is a closer examination of each of the five steps.

THE 5 STEPS CLOSE-UP

1) Setting Goals

You can have virtually anything you want, but you can't have everything you want.

The first, most important, and typically most difficult step in the 5-Step Process is setting goals, because it forces you to decide what you really want and therefore what you can possibly get out of life. This is the step where you face the fundamental limit: life is like a giant smorgasbord of more delicious alternatives than you can ever hope to taste. So you have to reject having some things you want in order to get other things you want more.

Some people fail at this point, afraid to reject a good alternative for fear that the loss will deprive them of some essential ingredient to their personal happiness. As a result, they pursue too many goals at the same time, achieving few or none of them.

So it's important to remember: it doesn't really matter if some things are unavailable to you, because the selection of what IS available is so great. (That is why many people who had major losses—e.g., who lost their ability to walk, to see, etc.—and who didn't narrow-mindedly obsess about their loss but rather open- mindedly accepted and enjoyed what remained, had equally happy lives as those who didn't ever have these losses.)

In other words, you can have an enormous amount: much, much more than what you need to have for a happy life. So don't get discouraged by not being able to have everything you want, and for God's sake, don't be paralyzed by the choices. That's nonsensical and unproductive. Get on with making your choices.

Put another way, ***to achieve your goals you have to prioritize, and that includes rejecting good alternatives*** (so that you have the time and resources to pursue even better ones—time being probably your greatest limiting factor, though, through leverage, you can substantially reduce time's constraints).

It is important not to confuse “goals” and “desires.”

Goals are the things that you really want to achieve, while desires are things you want that can prevent you from reaching your goals—as I previously explained, desires are typically first-order consequences. For example, a goal might be physical fitness, while a desire is the urge to eat good-tasting, unhealthy food (i.e., a first-order consequence) that could undermine you obtaining your fitness goal. So, in terms of the consequences they produce, goals are good and desires are bad.[41]

Don’t get me wrong; I believe you can choose to pursue any goal you want as long as you consider the consequences. So, staying with this example, I think it is perfectly OK for you to make your goal to enjoy eating good-tasting, unhealthy food if that choice will bring you what you really want. As I said earlier, if you want to be a couch potato, that’s fine with me—seriously. But if that’s not what you want, you better not open that bag of chips. In other words, failing to make the distinction between goals and desires will lead you in the wrong direction, because you will be inclined to pursue things you want that will undermine your ability to get things you want more. In short, you can pursue anything you desire—just make sure that you know the consequences of what you are doing.

Another common reason people fail at this stage is that they lose sight of their goals, getting caught up in day-to-day tasks.

Avoid setting goals based on what you think you can achieve.

As I said before, do each step separately and distinctly without regard to the others. In this case, that means don’t rule out a goal due to a superficial assessment of its attainability. Once you commit to a goal, it might take lots of thinking and many revisions to your plan over a considerable time period in order to finalize the design and do the tasks to achieve it. So you need to set goals without yet assessing whether or not you can achieve them.

This requires some faith that you really can achieve virtually anything,[42] even if you don’t know how you will do it at that moment. Initially you have to have faith that this is true, but after following this process and succeeding at achieving your goals, you will gain confidence. If you like, you can start with more modest goals and, when you build up the track record to give you faith, increase your aspirations.

Every time I set goals, I don’t yet have any idea how I am going to

achieve them because I haven't yet gone through the process of thinking through them. But I have learned that I can achieve them if I think creatively and work hard.[43]

I also know that I can "cheat." Unlike in school, in life you don't have to come up with all the right answers. You can ask the people around you for help—or even ask them to do the things you don't do well.

In other words, there is almost no reason not to succeed if you take the attitude of 1) total flexibility—good answers can come from anyone or anywhere (and in fact, as I have mentioned, there are far more good answers "out there" than there are in you) and 2) total accountability: regardless of where the good answers come from, it's your job to find them.

This no-excuses approach helps me do whatever it takes to get whatever I want most. Not all goals are achievable, of course. There are some impossibilities or near-impossibilities, such as living forever, or flying with just the power of your arms. But it's been my experience that if I commit to bringing creativity, flexibility, and determination to the pursuit of my goals, I will figure out some way to get them, i.e., almost all goals are attainable. And as I don't limit my goals to what seems attainable at the moment I set them, the goals I set tend to be higher than they would otherwise be. Since trying to achieve high goals makes me stronger, I become increasingly capable of achieving more. Great expectations create great capabilities, in other words. And if I fail to achieve my goal, it just tells me that I have not been creative or flexible or determined enough to do what it takes, and I circle back and figure out what I need to do about this situation.

Achieving your goals isn't just about moving forward.

Inevitably, you must deal with setbacks. So goals aren't just those things that you want and don't have. They might also be keeping what you do have, minimizing your rate of loss, or dealing with irrevocable loss. Life will throw you challenges, some of which will seem devastating at the time. Your goal is always to make the best possible choices, knowing that you will be rewarded if you do. It's like playing golf: sometimes you will be in the fairway and sometimes you will be in the rough, so you have to know how to play it as it lies.

Generally speaking, goal-setting is best done by those who are good at big-picture conceptual thinking, synthesizing, visualizing, and prioritizing. But whatever your strengths and weaknesses are, don't forget the big and really great news here: it is not essential that you have all of these qualities yourself, because you can supplement them

with the help of others.

In summary, in order to get what you want, the first step is to really know what you want, without confusing goals with desires, and without limiting yourself because of some imagined impediments that you haven't thoroughly analyzed.

How well do you know what you want most out of life?

What are your most important goals?

Are you good at setting your goals?

How confident are you that your assessment of you ability to set goals is right?

If you are confident of your self-assessment, why should you be confident (e.g. because you have a demonstrated track-record, because many believable people have told you, etc)?

2) Identifying and Not Tolerating Problems

After you set your goals, you must come up with a plan or a design to achieve them and then you must execute that plan by doing the tasks. On the way to achieving your goals and executing your design, you will encounter problems that have to be diagnosed, so that the design can be modified to get around these obstacles. That's why you need to identify and not tolerate problems.

Most problems are potential improvements screaming at you.

Whenever a problem surfaces, you have in front of you an opportunity to improve. ***The more painful the problem, the louder it is screaming.*** *[44]* ***In order to be successful, you have to 1) perceive problems and 2) not tolerate them.***

If you don't identify your problems, you won't solve them, so you won't move forward toward achieving your goals. As a result, ***it is essential to bring problems to the surface.***

Most people don't like to do this. But most successful people know that they have to do this.

The most common reasons people don't successfully identify their problems are generally rooted either in a lack of will or in a lack of talent or skill:

They can be ***"harsh realities"*** that are unpleasant to look at, so people often subconsciously put them "out of sight" so they will be "out of mind."

Thinking about problems that are difficult to solve can produce ***anxiety*** that stands in the way of progress.

People often ***worry more about appearing to not have problems*** than about achieving their desired results, and therefore ***avoid recognizing that their own mistakes and/or weaknesses*** are causing the problems. This aversion to seeing one's own mistakes and weaknesses typically occurs because they're viewed as deficiencies you're stuck with rather than as essential parts of the personal evolution process.

Sometimes people are simply ***not perceptive enough*** to see the problems.

Some people are ***unable to distinguish big problems from small ones.*** Since nothing is perfect, it is possible to identify an infinite number of problems everywhere. If you are unable to distinguish the big problems from the little ones, you can't "successfully" (i.e., in a practical way) identify problems. Remember, you don't have to be good at any of the five steps (in this case, identifying problems) to be successful if you get help from others. ***So push through the pain of facing your problems, knowing you will end up in a much better place.***

When identifying problems, it is important to remain centered and logical.

While it can be tempting to react emotionally to problems and seek sympathy or blame others, this accomplishes nothing.[45] Whatever the reasons, you have to get over the impediments to succeed. Remember that the pains you are feeling are "growing pains" that will test your character and reward you if you push through them. Try to look at your problems as a detached observer would. ***Remember that identifying problems is like finding gems embedded in puzzles; if you solve the puzzles you will get the gems that will make your life much better.*** Doing this continuously will lead to your rapid evolution. So, if you're logical, you really should get excited about finding problems because identifying them will bring you closer to your goals.

How good are you at perceiving problems?

How confident are you that your assessment of your ability to perceive problems is right?

If you are confident of your self-assessment, why should you be confident (e.g. because you have a demonstrated track-record, because many believable people have told you, etc)?

Be very precise in specifying your problems.

It is essential to identify your problems with precision, for different problems have different solutions. For example, if your impediments are due largely to issues of will—to your unwillingness to confront what is really happening—you have to strengthen your will, for example by starting small and building up your confidence.

If your problems are related to lack of skill or innate talent, the most powerful antidote is to have others point things out to you and objectively consider whether what they identify is true. Problems due to inadequate skill might then be solved with training, whereas those arising from innate weaknesses might be overcome with assistance or role changes. It doesn't matter which is the case; it only matters that the true cause is identified and appropriately addressed.[46]

The more precise you are, the easier it will be to come up with accurate diagnoses and successful solutions. For example, rather than saying something like "People don't like me," it is better to specify which people don't like you and under what circumstances.

Don't confuse problems with causes.

"I can't get enough sleep" is not a problem; it is a cause of some problem. What exactly is that problem? To avoid confusing the problem with its causes, try to identify the suboptimal outcome, e.g., "I am performing badly in my job because I am tired."

Once you identify your problems, you must not tolerate them.

Tolerating problems has the same result as not identifying them (i.e., both stand in the way of getting past the problem), but the root causes are different. Tolerating problems might be due to not thinking that they can be solved, or not caring enough about solving them.[47] People who tolerate problems are the worse off because, without the motivation to move on, they cannot succeed. In other words, if you are motivated, you can succeed even if you don't have the abilities (i.e., talents and skills) because you can get the help from others. But if you're not motivated to succeed, if you don't have the will to succeed, the situation is hopeless.

How much do you tolerate problems?

How confident are you that your assessment of how much you tolerate problems is right?

If you are confident of your self-assessment, why should you be confident (e.g. because you have a demonstrated track-record, because many believable people have told you, etc)?

People who are good at this step—identifying and not tolerating problems—tend to have strong abilities to ***perceive*** and ***synthesize*** a clear and accurate picture, as well as demonstrate a fierce ***intolerance of badness*** (regardless of the severity).

Remember that you need to do each step independently from the other steps before moving on.

Can you comfortably identify your problems without thinking about how to solve them? It is a good exercise to just make a list of them, without possible solutions. Only after you have created a clear picture of your problems should you go to the next step.

For a more detailed explanation of identifying and not tolerating problems, please read My Management Principles.

3) Diagnosing the Problems

You will be much more effective if you focus on diagnosis and design rather than jumping to solutions.

It is a very common mistake for people to move directly from identifying a tough problem to a proposed solution in a nanosecond without spending the hours required to properly diagnose and design a solution. This typically yields bad decisions that don't alleviate the problem. Diagnosing and designing are what spark strategic thinking.

You must be calm and logical.

When diagnosing problems, as when identifying problems, reacting emotionally, though sometimes difficult to avoid, can undermine your effectiveness as a decision-maker. By contrast, staying rational will serve you well. So if you are finding yourself shaken by your problems, do what you can to get yourself centered before moving forward.

You must get at the root causes.

Root causes, like principles, are things that manifest themselves over and over again as the deep-seated reasons behind the actions that cause problems. So you will get many everlasting dividends if you can find them and properly deal with them.

It is important to distinguish root causes from proximate causes. Proximate causes typically are the actions or lack of actions that lead to problems—e.g., "I missed the train because I didn't check the train schedule." So proximate causes are typically described via verbs. Root causes are the deeper reasons behind the proximate cause: "I didn't check the schedule because I am forgetful"—a root cause. Root causes are typically described with adjectives, usually characteristics about what the person is like that lead them to an action or an inaction.

Identifying the real root causes of your problems is essential because you can eliminate your problems only by removing their root causes. In other words, you must understand, accept, and successfully deal with reality in order to move toward your goals.

Recognizing and learning from one's mistakes and the mistakes of others who affect outcomes is critical to eliminating problems.

Many problems are caused by people's mistakes. But people often find it difficult to identify and accept their own mistakes. Sometimes it's because they're blind to them, but more often it's because ego and shortsightedness make discovering their mistakes and weaknesses painful. Because people are often upset when their mistakes are pointed out to them, most people are reluctant to point out mistakes in others. As a result, an objective diagnosis of problems arising from people's mistakes is often missing and personal evolution is stunted. (As I mentioned in the last chapter, most learning comes from making mistakes and experiencing the pain of them—e.g., putting your hand on a hot stove—and adapting.) It is at this stage that most people fail to progress. ***More than anything else, what differentiates people who live up to their potential from those who don't is a willingness to look at themselves and others objectively.***

I call the pain that comes from looking at yourself and others objectively "growing pains," because it is the pain that accompanies personal growth. No pain, no gain. Of course, anyone who really understands that no one is perfect and that these discoveries are essential for personal growth finds that these discoveries elicit "growing pleasures." But it seems to be in our nature to overly focus on short-term gratification rather than long-term satisfaction—on first-order rather than second- or third-order consequences—so the

connection between this behavior and the rewards it brings doesn't come naturally. However, if you can make this connection, such moments will begin to elicit pleasure rather than pain. It is similar to how exercise eventually becomes pleasurable for people who hardwire the connection between exercise and its benefits.

Remember that:

Pain + Reflection = Progress

Much as you might wish this were not so, this is a reality that you should just accept and deal with. There is no getting around the fact that achieving success requires getting at the root causes of all important problems, and people's mistakes and weaknesses are sometimes the root causes. So ***to be successful, you must be willing to look at your own behavior and the behavior of others as possible causes of problems.***

Of course, some problems aren't caused by people making mistakes. For example, if lightning strikes, it causes problems that have nothing to do with human error. All problems need to be well-diagnosed before you decide what to do about them.

The most important qualities for successfully diagnosing problems are logic, the ability to see multiple possibilities, and the willingness to touch people's nerves to overcome the ego barriers that stand in the way of truth.

For a more detailed explanation of diagnosing problems, please read My Management Principles.

In diagnosing problems, how willing are you to "touch the nerve" (i.e., discuss your and others possible mistakes and weaknesses with them)?

Are you willing to get at root causes, like what people are like?

Are you good at seeing the patterns and synthesizing them into diagnoses of root causes?

How confident are you that your assessment of your ability to diagnose is accurate?

If you are confident of your self-assessment, why should you be confident (e.g. because you have a demonstrated track-record, because many believable people have told you, etc)?

In some cases, you might go from setting goals to designing the plans that will get you to these goals; while in other cases, you will encounter problems on the way to your goals and have to design your way around them. So design will occur at both stages of the process, though it will occur much more often in figuring out how to get around problems. In other words, most of the movement toward your goals comes from designing how to remove the root causes of your problems. Problems are great because they are ***very specific*** impediments, so you know that you will move forward if you can identify and eliminate their root causes.

Creating a design is like writing a movie script in that you visualize who will do what through time in order to achieve the goal.

Visualize the goal or problem standing in your way, and then visualize practical solutions. When designing solutions, the objective is to change how you do things so that problems don't recur—or recur so often. Think about each problem individually, and as the product of root causes—like the outcomes produced by a machine. Then think about how the machine should be changed to produce good outcomes rather than bad ones. There are typically many paths toward achieving your goals, and you need to find only one of them that works, so it's almost always doable.

But an effective design requires thinking things through and visualizing how things will come together and unfold over time. It's essential to visualize the story of where you have been (or what you have done) that has led you to where you are now and what will happen sequentially in the future to lead you to your goals. You should visualize this plan through time, like watching a movie that connects your past, present, and future.

Then write down the plan so you don't lose sight of it, and include who needs to do what and when. The list of tasks falls out from this story (i.e., the plan), but they are not the same. The story, or plan, is what connects your goals to the tasks. For you to succeed, you must not lose sight of the goals or the story while focusing on the tasks; you must constantly refer back and forth. In My Management Principles (Part 3), you can see one such plan.

When designing your plan, think about the timelines of various interconnected tasks. Sketch them out loosely and then refine them with the specific tasks. This is an iterative process, alternating between sketching out your broad steps (e.g., hire great people) and

filling these in with more specific tasks with estimated timelines (e.g., in the next two weeks choose the headhunters to find the great people) that will have implications (e.g., costs, time, etc.). These will lead you to modify your design sketch until the design and tasks work well together. Being as specific as possible (e.g., specifying who will do what and when) allows you to visualize how the design will work at both a big-picture level and in detail. It will also give you and others the to-do lists and target dates that will help direct you.

Of course, not all plans will accomplish everything you want in the desired time frame. In such cases, it is essential that you look at what won't be accomplished and ask yourself if the consequences are acceptable or unacceptable. This is where perspective is required, and discussing it with others can be critical. If the plan will not achieve what's necessary in the required time, so that the consequences have an unacceptably high probability of preventing you from achieving your goal, you have to either think harder (probably with the advice of other believable people) to make the plan do what is required or reduce your goals.

It doesn't take much time to design a good plan—literally just hours spread out over days or weeks—and whatever amount of time you spend designing it will be only a small fraction of the time you spend executing it. But designing is very important because it determines what you will have to do to be effective. Most people make the very big mistake of spending virtually no time on this step because they are too preoccupied with execution. This process is explained in detail in My Management Principles.

People successful with this stage have an ***ability to visualize*** and a ***practical understanding*** of how things really work. Remember, you don't have to possess all these qualities if you have someone to help you with the ones you are missing.

How good is your ability to visualize?

How confident are you that your assessment of your ability to visualize is accurate?

If you are confident of your self-assessment, why should you be confident (e.g. do have an excellent track record of visualizing and making what you visualized happen, have other believable parties told you that you are good at this)?

Remember: Designing precedes doing! The design will give you your to-do list (i.e., the tasks).

5) Doing the Tasks

Next, you and the others you need to rely on have to do the tasks that will get you to your goals. Great planners who don't carry out their plans go nowhere. You need to "push through" to accomplish the goals. This requires the self-discipline to follow the script that is your design. ***I believe the importance of good work habits is vastly underrated.*** There are lots of books written about good work habits, so I won't digress into what I believe is effective. However, ***it is critical to know each day what you need to do and have the discipline to do it.*** People with good work habits have to-do lists that are reasonably prioritized, and they make themselves do what needs to be done. By contrast, people with poor work habits almost randomly react to the stuff that comes at them, or they can't bring themselves to do the things they need to do but don't like to do (or are unable to do). There are lots of tools that can help (e.g., thank God for my BlackBerry!)

You need to know whether you (and others) are following the plan, so you should establish clear benchmarks. Ideally you should have someone other than yourself objectively measure if you (and others) are doing what you planned. If not, you need to diagnose why and resolve the problem.

People who are good at this stage can reliably execute a plan. They tend to be ***self-disciplined*** and ***proactive*** rather than reactive to the blizzard of daily tasks that can divert them from execution. They are ***results-oriented: they love to push themselves over the finish line to achieve the goal.*** If they see that daily tasks are taking them away from executing the plan (i.e., they identify this problem), they diagnose it and design how they can deal with both the daily tasks and moving forward with the plan.

As with the other steps, if you aren't good at this step, get help. There are many successful, creative people who are good at the other steps but who would have failed because they aren't good at execution. But they succeeded nonetheless because of great symbiotic relationships with highly reliable task-doers.

For a more detailed explanation of doing what you set out to do, please see My Management Principles.

How good are you at pushing through?

How confident are you that your assessment of your ability to push through is accurate?

If you are confident of your self-assessment, why should you be confident (e.g. because you have a demonstrated track-record, because many believable people have told you, etc)?

The Relationships between These Steps

Designs and tasks have no purpose other than to achieve your goals. Said differently, goals are the sole purpose of designs and tasks. So you mustn't forget how they're related. Frequently I see people feel great about doing their tasks while forgetting the goals they were designed to achieve, resulting in the failure to achieve their goals. This doesn't make any sense, because the only purpose of tasks is to achieve goals. In order to be successful, your goals must be riveted in your mind: they are the things you MUST do. To remember the connections between the tasks and the goals that they are meant to achieve, you just have to ask, "Why?" It is good to connect tasks to goals this way (with the "Why?"), because losing sight of the connections will prevent you from succeeding.

Again, this 5-Step Process is iterative. This means that after completing one of the steps you will probably have acquired relevant information that leads you to modify the other steps.

If this process is working, goals will change much more slowly than designs, which will change more slowly than tasks. Designs and tasks can be modified or changed often (because you might want to reassess how to achieve the goal), but changing goals frequently is usually a problem because achieving them requires a consistent effort. I often find that people who have problems reaching their goals handle these steps backwards; that is, they stick too rigidly to specified tasks and are not committed enough to achieving their goals (often because they lose sight of them).

Weaknesses Don't Matter if You Find Solutions

To repeat, the best advice I can give you is to ask yourself what you want, then ask 'what is true,' and then ask yourself 'what should be done about it.' If you honestly ask and answer these questions you will move much faster towards what you want to get out of life than if you don't!

Most importantly, ***ask yourself what is your biggest weakness that***

stands in the way of what you want.

As I mentioned before, everyone has weaknesses. The main difference between unsuccessful and successful people is that unsuccessful people don't find and address them, and successful people do.

It is difficult to see one's own blind spots for two reasons:

1) Most people don't go looking for their weaknesses because of "ego barriers"—they find having weaknesses painful because society has taught them that having weaknesses is bad. As I said early on, I believe that we would have a radically more effective and much happier society if we taught the truth, which is that everyone has weaknesses, and knowing about them and how to deal with them is how people learn and succeed.

2) Having a weakness is like missing a sense—if you can't visualize what it is, it's hard to perceive not having it.

For these two reasons, having people show you what you are missing can be painful, though its essential for your progress. When you encounter that pain, try to remember that ***you can get what you want out of life if you can open-mindedly reflect, with the help of others, on what is standing in your way and then deal with it.***

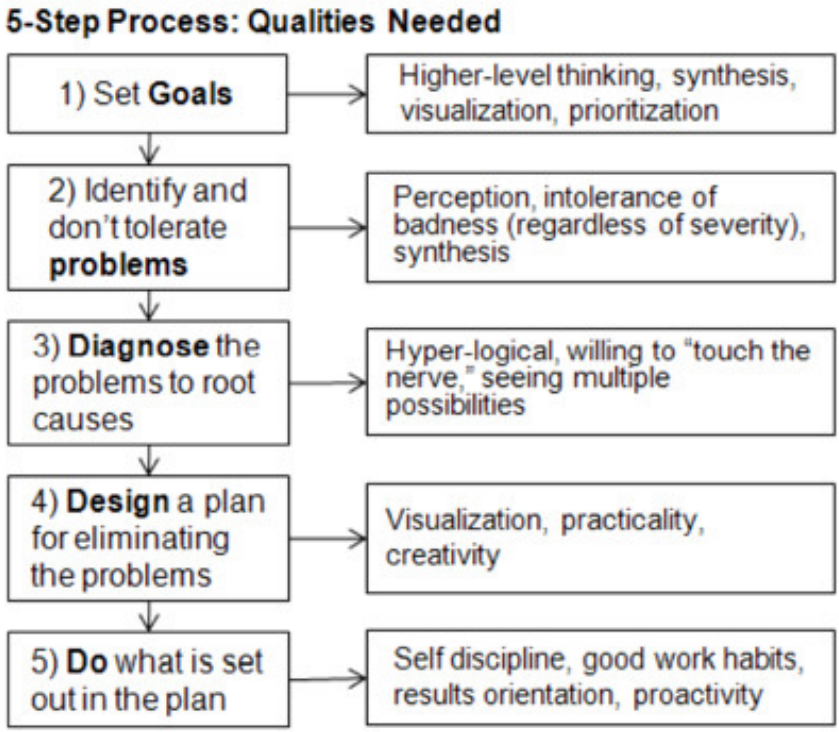
What do you think is the biggest weakness you have that stands in the way of what you want – the one that you repeatedly run into?

People who don't get what they want out of life fail at one or more of the five steps. But ***being weak at any one of these steps is not a problem if you understand what you are weak at and successfully compensate for that weakness by seeking help.*** For example, a good goal-setter who is bad at doing tasks might work well with a bad goal-setter who is great at doing tasks—i.e., they will be much more successful working together. It is easy to find out what weaknesses are standing in your way by 1) identifying which steps you are failing at and 2) getting the feedback of people who are successful at doing what you are having problems with.

Because I believe that you will achieve your goals if you do these five steps well, it follows that if you are not achieving your goals you can use the 5-Step Process as a diagnostic tool. You would do this by 1) identifying the step(s) that you are failing at; 2) noting the qualities

required to succeed at that step; and 3) identifying which of these qualities you are missing.

To repeat, the five steps and the qualities that I believe are required to be good at them are as follows:


5-Step Process: Qualities Needed
1) Set Goals
Higher-level thinking, synthesis, visualization, prioritization
2) Identify and don't tolerate problems
Perception, intolerance of badness (regardless of severity), synthesis
3) Diagnose the problems to root causes
Hyper-logical, willing to "touch the nerve," seeing multiple possibilities
4) Design a plan for eliminating the problems
Visualization, practicality, creativity
5) Do what is set out in the plan
Self discipline, good work habits, results orientation, proactivity

At which step do you have the most problem?

Which qualities needed do you wish you had more of?

In a nutshell, my 5-Step process for achieving what you want is:

Values → 1) Goals → 2) Problems → 3) Diagnoses → 4) Designs → 5) Tasks

Your values determine what you want, i.e., your goals. In trying to achieve your goals, you will encounter problems that have to be diagnosed. Only after determining the real root causes of these problems can you design a plan to get around them. Once you have a good plan, you have to muster the self-discipline to do what is required to make the plan succeed. Note that this process starts with your values, but it requires that you succeed at all five steps. While these steps require different abilities, you don't have to be good at all

of them. If you aren't good at all of them (which is true for almost everyone), you need to know what you are bad at and how to compensate for your weaknesses. This requires you to put your ego aside, objectively reflect on your strengths and weaknesses, and seek the help from others.

As you design and implement your plan to achieve your goals, you may find it helpful to consider that:

- Life is like a game where you seek to overcome the obstacles that stand in the way of achieving your goals;
- You get better at this game through practice;
- The game consists of a series of choices that have consequences;
- You can't stop the problems and choices from coming at you, so it's better to learn how to deal with them;
- You have the freedom to make whatever choices you want, though it's best to be mindful of their consequences;
- The pain of problems is a call to find solutions rather than a reason for unhappiness and inaction, so it's silly, pointless, and harmful to be upset at the problems and choices that come at you (though it's understandable);
- We all evolve at different paces, and it's up to you to decide the pace at which you want to evolve;[48]
- The process goes better if you are as accurate as possible in all respects, including assessing your strengths and weaknesses and adapting to them.

While all this may sound very theoretical, it is integral to how we operate every day. For example, my management principles, which are explained in the next section, are based on the principles that I described in this section. So, Bridgewater is based on the core belief that everyone here is evolving together. How well and how quickly we do that will have a huge effect on our well-being and the well- being of all the people we have contact with (e.g., our clients, our families, etc.). These two things are inextricably linked. Bridgewater is also based on the belief that to be successful and happy, not only do we have to be excellent, we have to continue to improve at a surprisingly fast rate. Bridgewater operates consistently with the belief that to be excellent and improve at a fast rate, we must be hyperrealistic and hypertruthful. We therefore need to overcome any impediments to being realistic and truthful, and the biggest impediment is people's reluctance to face their own mistakes and weaknesses and those of others. Bridgewater is based on the belief that both meaningful work and meaningful relationships are required to be happy and successful.

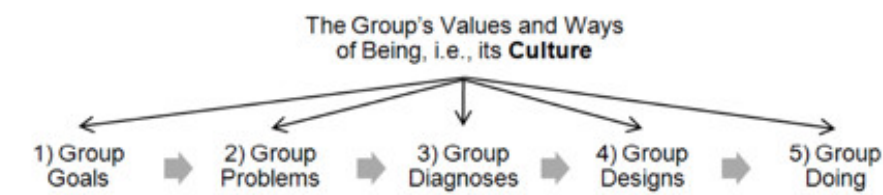
So, our relationships, like our work, must be excellent; as a result, we expect people to be extremely considerate and caring with each other. This does not mean being soft on each other, especially if that means avoiding harsh realities to avoid causing discomfort. It means true caring, which requires recognizing and successfully dealing with our realities, whatever they are.

The management principles that follow reflect these core values and the specific ways that they are lived out at Bridgewater.

Part 3: My Management Principles

In Part 1 I explained why I believe having principles is important and that I believe that it is up to each person to decide what principles are best for them. In Part 2 I explained my most fundamental principles. In this part I explain my management principles. Naturally, my management principles reflect the principles I believe are best throughout my life. But before I get into my particular management principles, I'd like to touch on management principles in general.

If you read any of the earlier parts you know that I believe that having principles is essential for getting what you want out of life. That is as true for groups of people (e.g., companies, schools, governments, foundations, etc.) as it is for individuals. While individuals operating individually can choose whatever values and principles they like, when working in a group the people must agree on the group's values and principles. If the group is not clear about them, confusion and eventually gravitation toward the population's averages will result. If the group's values and principles are clear, their way of being (i.e., their culture) will permeate everything they do. It will drive how the people in the group set goals, identify problems, diagnose problems, design solutions and make sure that these designs are implemented. So I believe this relationship looks like this:


The Group's Values and Ways of Being, i.e., its **Culture**
1) Group Goals
2) Group Problems
3) Group Diagnoses
4) Group Designs
5) Group Doing

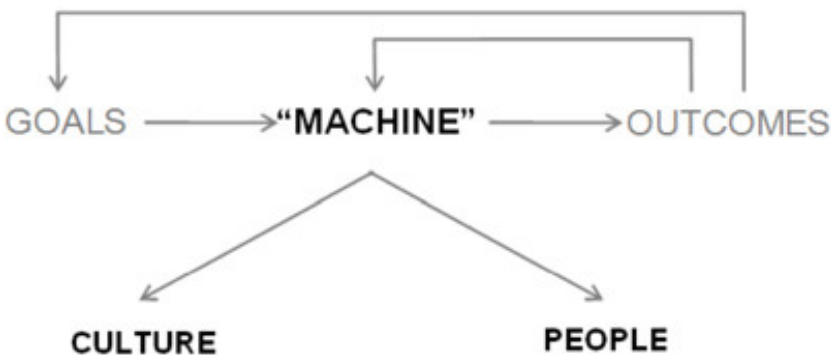
While having a clearly conveyed ***great culture*** is important, that's only half of the magic formula. The other half is having ***great people***—i.e., people who have the values, abilities, skills that fit the organization's culture.

In other words, I believe that to have a great company you have to make two things great —the ***culture*** and the ***people***. If these two things are great your organization can navigate the twists and turns to get you where you want to go.

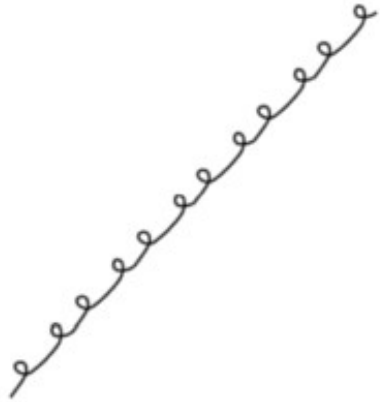
Of course, you have to know where you want to go. Organizations, like individuals, have to choose what they are going after (i.e., their goals), which influences their directions. As they move toward their

goals, they encounter problems, make mistakes and discover weaknesses. Above all else, how they choose to approach these impediments determines how fast they move toward their goals.

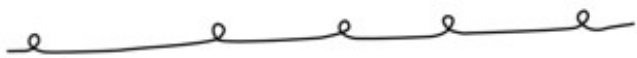
Every organization works like a machine to achieve its goals. This machine produces outcomes. By comparing the outcomes to the goals, those running the machine can see how well the machine is working. This is the ***feedback loop*** that those who are responsible for the machine need to run well in order to improve the machine. Based on the feedback, the machine can be adjusted to improve. The machine consists of two big parts—the ***culture*** and the ***people***. If the outcomes are inconsistent with the goals, something must be wrong with the machine, which means that something must be wrong with the culture and/or the people. By diagnosing what is wrong, designing improvements and implementing those improvements, the machine will evolve. In short, the evolutionary process is as follows. Take a minute to look it over and see what you think.



The more frequently and effectively those in the machine go through this process, the more rapidly they and the machine will evolve. An effective evolutionary process looks like this—i.e., lots of quality feedback loops produces a steep upward trajectory.



An ineffective evolutionary process—i.e., one in which mistakes are infrequently looked at and weaknesses are not well identified—looks like that shown below, i.e., fewer and/or less effective feedback loops produces a slower upward trajectory. In fact, if there are two few and/or bad quality feedback loops, there will be a decline because you won't identify and deal with the problems that will kill you.



I believe that this is equally true for individuals and organizations. I also believe that the most important difference between great organizations and bad ones is in how well they manage their feedback loops.

Bridgewater's Culture and People

Naturally, the culture and people that I have chosen for Bridgewater are extensions the principles that I believe work best, which I explained in Part 2. Most importantly I value meaningful work and meaningful relationships that are obtained by striving for truth and excellence with great people. I am confident that through this constant striving, we will evolve rapidly together.

As you might have guessed from reading Part 2, ***I want Bridgewater to be a company in which people collectively…***

…1) work for what they want and not for what others want of them.

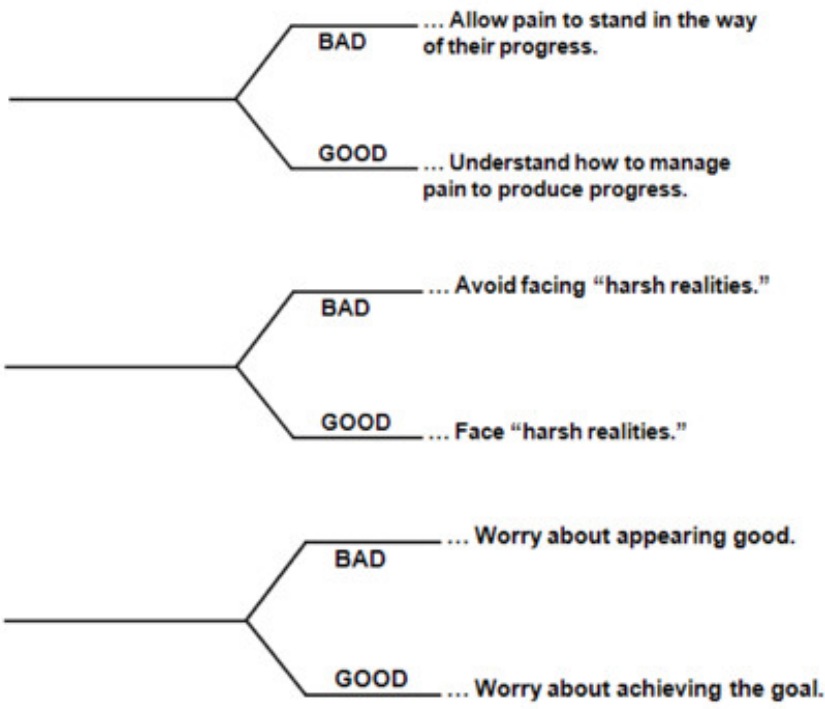
…2) come up with the best independent opinions they can muster to move toward their goals,

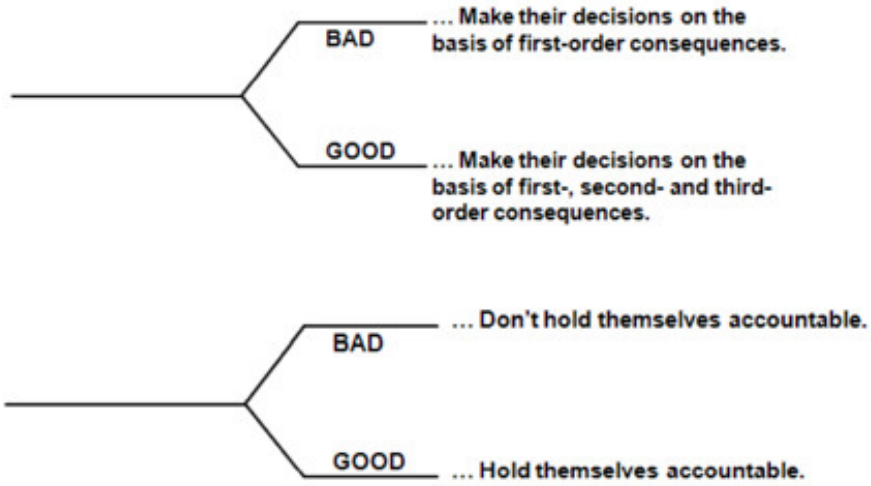
…3) stress-test their opinions by having the smartest people they can find to challenge them so they can find out where they are wrong,

…4) are wary about overconfidence, and good at not knowing

…5) wrestle with reality, experiencing the results of their decisions, and reflecting on what they did to produce them so that they can improve.

And when faced with difficult choices, I want them to see the choices as follows.




BAD
... Make their decisions on the basis of first-order consequences.
GOOD
... Make their decisions on the basis of first-, second- and third-order consequences.
BAD
... Don't hold themselves accountable.
GOOD
... Hold themselves accountable.

While I recognize that being this way is challenging, I am also confident that it is what is required to get the most out of out of life. I am confident for two reasons. First, it is logical that the cause-effect relationships are such that being this way produces good results. Second, this theory has been tested over the last 40 years and has worked. While 40 years ago being this way seemed logical, back then that was an untested theory. Now that we have 40 years of testing to look back on, we can see that the results verify the theory.

Fleshing Out This Way of Being

The best advice I can give you is to ask yourself what do you want, then ask 'what is true'—and then ask yourself 'what should be done about it.' I believe that if you do this you will move much faster towards what you want to get out of life than if you don't!

Because what I have said is pretty abstract, I need to spell out exactly what it means to run a company this way. I need to get very specific. Over time I have built a collection of principles that encompasses almost all aspects of managing because I have collected and refined so many over time. I believe that virtually all problems you might encounter are addressed by one or more of the principles that follow.

There are too many to read as a book. What follows is not a few rules to go by presented in an easily digestible form that's easy to remember. That wouldn't have been specific enough to be of much help to you. There are over 200 principles here that are well explained and are meant to be used more as a reference book than a book that is

read from cover to cover.

I've created an outline that serves the purposes of being both a summary of my management principles and a table of contents for a more complete explanation of them. Said differently, these principles are presented in a big picture way in this Summary and Table of Principles and in a more thoroughly explained way in the section that follows. If you want to understand the principles in brief, just read what's said in the summary below and if you want to delve into them, go to the individual principles after the outline.

1) Trust in Truth

2) Realize that you have nothing to fear from truth.

3) Create an environment in which everyone has the right to understand what makes sense and no one has the right to hold a critical opinion without speaking up about it.

4) Be extremely open.

5) Have integrity and demand it from others.

a) Never say anything about a person you wouldn't say to them directly, and don't try people without accusing them to their face. b) Don't let "loyalty" stand in the way of truth and openness.

6) Be radically transparent.

a) Record almost all meetings and share them with all relevant people.

7) Don't tolerate dishonesty.

a) Don't believe it when someone caught being dishonest says they have seen the light and will never do that sort of thing again.

8) Create a Culture in Which It Is OK to Make Mistakes but Unacceptable Not to Identify, Analyze, and Learn From Them

9) Recognize that effective, innovative thinkers are going to make mistakes

10) Do not feel bad about your mistakes or those of others. Love them!

11) Observe the patterns of mistakes to see if they are a product of weaknesses.

12) Do not feel bad about your weaknesses or those of others.

13) Don't worry about looking good - worry about achieving your goals.

14) Get over "blame" and "credit" and get on with "accurate" and "inaccurate."

15) Don't depersonalize mistakes.

16) Write down your weaknesses and the weaknesses of others to help remember and acknowledge them.

17) When you experience pain, remember to reflect.

18) Be self-reflective and make sure your people are self-reflective.

19) Teach and reinforce the merits of mistake-based learning.

a) The most valuable tool we have for this is the issues log (explained fully later), which is aimed at identifying and

learning from mistakes.

20) Constantly Get in Synch

21) Constantly get in synch about what is true and what to do about it.

22) Talk about "Is it true?" and "Does it make sense?"

23) Fight for right.

24) Be assertive and open-minded at the same time.

a) Ask yourself whether you have earned the right to have an opinion.

b) Recognize that you always have the right to have and ask questions.

c) Distinguish open-minded people from closed-minded people.

d) Don't have anything to do with closed-minded, inexperienced people.

e) Be wary of the arrogant intellectual who comments from the stands without having played on the field.

f) Watch out for people who think it's embarrassing not to know.

25) Make sure responsible parties are open-minded about the questions and comments of others.

26) Recognize that conflicts are essential for great relationships because they are the means by which people determine whether their principles are aligned and resolve their differences.

a) Expect more open-minded disagreements at Bridgewater than at most other firms.

b) There is giant untapped potential in disagreement, especially if the disagreement is between two or more thoughtful people

27) Know when to stop debating and move on to agreeing about what should be done.

a) However, when people disagree on the importance of debating something, it should be debated.

b) Recognize that "there are many good ways to skin a cat."

c) For disagreements to have a positive effect, people evaluating an individual decision or decision-maker must view the issue within a broader context.

d) Distinguish between 1) idle complaints and 2) complaints that are meant to lead to improvement.

28) Appreciate that open debate is not meant to create rule by referendum.

29) Evaluate whether an issue calls for debate, discussion, or teaching.

a) To avoid confusion, make clear which kind of conversation

(debate, discussion, or teaching) you are having

b) Communication aimed at getting the best answer should involve the most relevant people.

c) Communication aimed at educating or boosting cohesion should involve a broader set of people than would be needed if the aim were just getting the best answer.

d) Leverage your communication.

30) Don't treat all opinions as equally valuable.

a) A hierarchy of merit is not only consistent with a meritocracy of ideas but essential for it.

31) Consider your own and others' "believabilities."

a) Ask yourself whether you have earned the right to have an opinion.

b) People who have repeatedly and successfully accomplished the thing in question and have great explanations when probed are most believable.

c) If someone asks you a question, think first whether you're the responsible party/right person to be answering the question.

32) Spend lavishly on the time and energy you devote to "getting in synch" because it's the best investment you can make.

33) If it is your meeting to run, manage the conversation.

a) Make it clear who the meeting is meant to serve and who is directing the meeting.

b) Make clear what type of communication you are going to have in light of the objectives and priorities.

c) Lead the discussion by being assertive and open-minded.

d) A small group (3 to 5) of smart, conceptual people seeking the right answers in an open-minded way will generally lead to the best answer.

e) $1+1=3$.

f) Navigate the levels of the conversation clearly.

g) Watch out for "topic slip."

h) Enforce the logic of conversations.

i) Worry about substance more than style.

j) Achieve completion in conversations.

k) Have someone assigned to maintain notes in meetings and make sure follow-through happens.

l) Be careful not to lose personal responsibility via group decision-making.

34) Make sure people don't confuse their right to complain, give advice, and debate with the right to make decisions.

35) Recognize that getting in synch is a two-way responsibility.

36) Escalate if you can't get in synch.

37) Recognize the Most Important Decisions You Make Are Who You Choose to Be Your Responsible Party

38) Remember that almost everything good comes from having great people operating in a great culture.

39) First, match the person to the design.

a) Most importantly, find people who share your values.

b) Look for people who are willing to look at themselves objectively and have character.

c) Conceptual thinking and common sense are required in order to assign someone the responsibility for achieving goals (as distinct from tasks).

40) Recognize that the inevitable responsible party is the person who bears the consequences of what is done.

41) By and large, you will get what you deserve over time.

42) The most important responsible parties are those who are most responsible for the goals, outcomes, and machines (they are those higher in the pyramid).

43) Choose those who understand the difference between goals and tasks to run things.

44) Recognize that People Are Built Very Differently

45) Think about their very different values, abilities, and skills

46) Understand what each person who works for you is like so that you know what to expect from them.

47) Recognize that the type of person you fit in the job must match the requirements for that job.

48) Use personality assessment tests and quality reflections on experiences to help you identify these differences.

49) Understand that different ways of seeing and thinking make people suitable for different jobs.

a) People are best at the jobs that require what they do well.

b) If you're not naturally good at one type of thinking, it doesn't mean you're precluded from paths that require that type of thinking

50) Don't hide these differences. Explore them openly with the goal of figuring out how you and your people are built so you can put the right people in the right jobs and clearly assign responsibilities.

51) Remember that people who see things and think one way often have difficulty communicating and relating to people who see things and think another way.

52) Hire Right, Because the Penalties of Hiring Wrong Are Huge

53) Think through what values, abilities, and skills you are

looking for.

54) Weigh values and abilities more heavily than skills in deciding whom to hire.

55) Write the profile of the person you are looking for into the job description.

56) Select the appropriate people and tests for assessing each of these qualities and compare the results of those assessments to what you've decided is needed for the job.

a) Remember that people tend to pick people like themselves, so pick interviewers who can identify what you are looking for.

b) Understand how to use and interpret personality assessments.

c) Pay attention to people's track records.

d) Dig deeply to discover why people did what they did.

e) Recognize that performance in school, while of some value in making assessments, doesn't tell you much about whether the person has the values and abilities you are looking for.

f) Ask for past reviews.

g) Check references.

57) Look for people who have lots of great questions.

58) Make sure candidates interview you and Bridgewater.

59) Don't hire people just to fit the first job they will do at Bridgewater; hire people you want to share your life with.

60) Look for people who sparkle, not just "another one of those."

61) Hear the click: Find the right fit between the role and the person.

62) Pay for the person, not for the job.

63) Recognize that no matter how good you are at hiring, there is a high probability that the person you hire will not be the great person you need for the job.

64) Manage as Someone Who Is Designing and Operating a Machine to Achieve the Goal

65) Understand the differences between managing, micromanaging, and not managing.

a) Managing the people who report to you should feel like "skiing together."

b) An excellent skier is probably going to be more critical and a better critic of another skier than a novice skier.

66) Constantly compare your outcomes to your goals.

67) Look down on your machine and yourself within it from the higher level.

68) Connect the case at hand to your principles for handling

cases of that type.

69) Conduct the discussion at two levels when a problem occurs: 1) the "machine" level discussion of why the machine produced that outcome and 2) the "case at hand" discussion of what to do now about the problem.

70) Don't try to be followed; try to be understood and to understand others.

a) Don't try to control people by giving them orders.

b) Communicate the logic and welcome feedback. ... 71)

71) Clearly assign responsibilities.

72) Hold people accountable and appreciate them holding you accountable

a) Distinguish between failures where someone broke their "contract" from ones where there was no contract to begin with.

73) Avoid the "sucked down" phenomenon.

a) Watch out for people who confuse goals and tasks, because you can't trust people with responsibilities if they don't understand the goals.

74) Think like an owner, and expect the people you work with to do the same.

75) Force yourself and the people who work for you to do difficult things.

a) Hold yourself and others accountable.

76) Don't worry if your people like you; worry about whether you are helping your people and Bridgewater to be great.

77) Know what you want and stick to it if you believe it's right, even if others want to take you in another direction.

78) Communicate the plan clearly.

a) Have agreed-upon goals and tasks that everyone knows (from the people in the departments to the people outside the departments who oversee them).

b) Watch out for the unfocused and unproductive "we should ... (do something)."

79) Constantly get in synch with your people.

80) Get a "threshold level of understanding"

81) Avoid staying too distant.

a) Tool: Use daily updates as a tool for staying on top of what your people are doing and thinking.

82) Learn confidence in your people—don't presume it.

83) Vary your involvement based on your confidence.

84) Avoid the "theoretical should."

85) Care about the people who work for you.

86) Logic, reason, and common sense must trump everything

else in decision- making.

87) While logic drives our decisions, feelings are very relevant.

88) Escalate when you can't adequately handle your responsibilities, and make sure that the people who work for you do the same.

a) Make sure your people know to be proactive.

b) Tool: An escalation button.

89) Involve the person who is the point of the pyramid when encountering material cross-departmental or cross sub-departmental issues.

90) Probe Deep and Hard to Learn What to Expect from Your "Machine"

91) Know what your people are like, and make sure they do their jobs excellently.

92) Constantly probe the people who report to you, and encourage them to probe you.

a) Remind the people you are probing that problems and mistakes are fuel for improvement.

93) Probe to the level below the people who work for you.

94) Remember that few people see themselves objectively, so it's important to welcome probing and to probe others.

95) Probe so that you have a good enough understanding of whether problems are likely to occur before they actually do.

a) When a crisis appears to be brewing, contact should be so close that it's extremely unlikely that there will be any surprises.

b) Investigate and let people know you are going to investigate so there are no surprises and they don't take it personally.

96) Don't "pick your battles." Fight them all.

97) Don't let people off the hook.

98) Don't assume that people's answers are correct.

99) Make the probing transparent rather than private.

100) Evaluate People Accurately, Not "Kindly"

101) Make accurate assessments.

a) Use evaluation tools such as performance surveys, metrics, and formal reviews to document all aspects of a person's performance. These will help clarify assessments and communication surrounding them.

b) Maintain "baseball cards" and/or "believability matrixes" for your people.

102) Evaluate employees with the same rigor as you evaluate job candidates.

103) Know what makes your people tick, because people are

your most important resource.

104) Recognize that while most people prefer compliments over criticisms, there is nothing more valuable than accurate criticisms.

105) Make this discovery process open, evolutionary, and iterative.

106) Provide constant, clear, and honest feedback, and encourage discussion of this feedback.

a) Put your compliments and criticisms into perspective.

b) Remember that convincing people of their strengths is generally much easier than convincing them of their weaknesses.

c) Encourage objective reflection

d) Employee reviews:

107) Understand that you and the people you manage will go through a process of personal evolution.

108) Recognize that your evolution at Bridgewater should be relatively rapid and a natural consequence of discovering your strengths and weaknesses; as a result, your career path is not planned at the outset

109) Remember that the only purpose of looking at what people did is to learn what they are like.

a) Look at patterns of behaviors and don't read too much into any one event.

b) Don't believe that being good or bad at some things means that the person is good or bad at everything.

110) If someone is doing their job poorly, consider whether this is due to inadequate learning (i.e., training/experience) or inadequate ability

111) Remember that when it comes to assessing people, the two biggest mistakes are being overconfident in your assessment and failing to get in synch on that assessment. Don't make those mistakes.

a) Get in synch in a non-hierarchical way regarding assessments.

b) Learn about your people and have them learn about you with very frank conversations about mistakes and their root causes.

112) Help people through the pain that comes with exploring their weaknesses.

113) Recognize that when you are really in synch with people about weaknesses, whether yours or theirs, they are probably true.

114) Remember that you don't need to get to the point of

"beyond a shadow of a doubt" when judging people.

115) Understand that you should be able to learn the most about what a person is like and whether they are a "click" for the job in their first year.

116) Continue assessing people throughout their time at Bridgewater.

117) Train and Test People Through Experiences

118) Understand that training is really guiding the process of personal evolution.

119) Know that experience creates internalization

120) Provide constant feedback to put the learning in perspective

121) Remember that everything is a case study.

122) Teach your people to fish rather than give them fish.

123) Recognize that sometimes it is better to let people make mistakes so that they can learn from them rather than tell them the better decision.

a) When criticizing, try to make helpful suggestions.

b) Learn from success as well as from failure.

124) Know what types of mistakes are acceptable and unacceptable, and don't allow the people who work for you to make the unacceptable ones.

125) Recognize that behavior modification typically takes about 18 months of constant reinforcement.

126) Train people; don't rehabilitate them.

a) A common mistake: training and testing a poor performer to see if he or she can acquire the required skills without simultaneously trying to assess their abilities.

127) After you decide "what's true" (i.e., after you figure out what your people are like), think carefully about "what to do about it."

128) Sort People into Other Jobs at Bridgewater, or Remove Them from Bridgewater

129) When you find that someone is not a good "click" for a job, get them out of it ASAP.

130) Know that it is much worse to keep someone in a job who is not suited for it than it is to fire someone.

131) When people are "without a box," consider whether there is an open box at Bridgewater that would be a better fit. If not, fire them.

132) Do not lower the bar.

To Perceive, Diagnose, and Solve Problems...

133) Know How to Perceive Problems Effectively

134) Keep in mind the 5-Step Process explained in Part 2.

135) Recognize that perceiving problems is the first essential step toward great management.

136) Understand that problems are the fuel for improvement.

137) You need to be able to perceive if things are above the bar (i.e., good enough) or below the bar (i.e., not good enough), and you need to make sure your people can as well

138) Don't tolerate badness.

139) "Taste the soup."

140) Have as many eyes looking for problems as possible.

a) "Pop the cork."

b) Hold people accountable for raising their complaints.

c) The leader must encourage disagreement and be either impartial or open-minded.

d) The people closest to certain jobs probably know them best, or at least have perspectives you need to understand, so those people are essential for creating improvement.

141) To perceive problems, compare how the movie is unfolding relative to your script

142) Don't use the anonymous "we" and "they," because that masks personal responsibility—use specific names.

143) Be very specific about problems; don't start with generalizations.

144) Tool: Use the following tools to catch problems: issues logs, metrics, surveys, checklists, outside consultants, and internal auditors.

145) The most common reason problems aren't perceived is what I call the "frog in the boiling water" problem.

146) In some cases, people accept unacceptable problems because they are perceived as being too difficult to fix. Yet fixing unacceptable problems is actually a lot easier than not fixing them, because not fixing them will make you miserable.

a) Problems that have good, planned solutions are completely different from those that don't.

147) Diagnose to Understand What the Problems Are Symptomatic Of

148) Recognize that all problems are just manifestations of their root causes, so diagnose to understand what the problems are symptomatic of.

149) Understand that diagnosis is foundational both to progress and quality relationships.

150) Ask the following questions when diagnosing.

151) Remember that a root cause is not an action but a reason.

152) Identify at which step failure occurred in the 5-Step

Process.

153) Remember that a proper diagnosis requires a quality, collaborative, and honest discussion to get at the truth.

154) Keep in mind that diagnoses should produce outcomes.

155) Don't make too much out of one "dot"—synthesize a richer picture by squeezing lots of "dots" quickly and triangulating with others.

156) Maintain an emerging synthesis by diagnosing continuously

157) To distinguish between a capacity issue and a capability issue, imagine how the person would perform at that particular function if they had ample capacity.

158) The most common reasons managers fail to produce excellent results or escalate are ...

159) Avoid "Monday morning quarterbacking."

160) Identify the principles that were violated.

161) Remember that if you have the same people doing the same things, you should expect the same results.

162) Use the following "drilldown" technique to gain an 80/20 understanding of a department or sub-department that is having problems.

163) Put Things in Perspective

164) Go back before going forward.

a) Tool: Have all new employees listen to tapes of "the story" to bring them up to date.

165) Understand "above the line" and "below the line" thinking and how to navigate between the two.

166) Design Your Machine to Achieve Your Goals

167) Remember: You are designing a "machine" or system that will produce outcomes.

a) A short-term goal probably won't require you to build a machine

b) Beware of paying too much attention to what is coming at you and not enough attention to what your responsibilities are or how your machine should work to achieve your goals.

168) Don't act before thinking. Take the time to come up with a game plan

169) The organizational design you draw up should minimize problems and maximize capitalization on opportunities.

170) Put yourself in the "position of pain" for a while so that you gain a richer understanding of what you're designing for

171) Recognize that design is an iterative process; between a bad "now" and a good "then" is a "working through it" period.

172) Visualize alternative machines and their outcomes, and then choose

173) Think about second- and third-order consequences as well as first-order consequences.

174) Most importantly, build the organization around goals rather than tasks.

a) First come up with the best workflow design, sketch it out in an organizational chart, visualize how the parts interact, specify what qualities are required for each job, and, only after that is done, choose the right people to fill the jobs

b) Organize departments and sub-departments around the most logical groupings.

c) Make departments as self-sufficient as possible so that they have control over the resources they need to achieve the goals.

d) The efficiency of an organization decreases and the bureaucracy of an organization increases in direct relation to the increase in the number of people and/or the complexity of the organization.

175) Build your organization from the top down.

a) Everyone must be overseen by a believable person who has high standards.

b) The people at the top of each pyramid should have the skills and focus to manage their direct reports and a deep understanding of their jobs.

c) The ratio of senior managers to junior managers and to the number of people who work two levels below should be limited, to preserve quality communication and mutual understanding.

d) The number of layers from top to bottom and the ratio of managers to their direct reports will limit the size of an effective organization.

e) The larger the organization, the more important are 1) information technology expertise in management and 2) cross-department communication (more on these later).

f) Do not build the organization to fit the people.

176) Have the clearest possible delineation of responsibilities and reporting lines.

a) Create an organizational chart to look like a pyramid, with straight lines down that don't cross.

177) Constantly think about how to produce leverage.

a) You should be able to delegate the details away.

b) It is far better to find a few smart people and give them the best technology than to have a greater number of ordinary and less well-equipped people.

c) Use "leveragers."

178) Understand the clover-leaf design.

179) Don't do work for people in another department or grab people from another department to do work for you unless you speak to the boss.

180) Watch out for "department slip."

181) Assign responsibilities based on workflow design and people's abilities, not job titles.

182) Watch out for consultant addiction.

183) Tool: Maintain a procedures manual.

184) Tool: Use checklists.

a) Don't confuse checklists with personal responsibility.

b) Remember that "systematic" doesn't necessarily mean computerized.

c) Use "double-do" rather than "double-check" to make sure mission-critical tasks are done correctly.

185) Watch out for "job slip."

186) Think clearly how things should go, and when they aren't going that way, acknowledge it and investigate

187) Have good controls so that you are not exposed to the dishonesty of others and trust is never an issue.

a) People doing auditing should report to people outside the department being audited, and auditing procedures should not be made known to those being audited.

b) Remember: There is no sense in having laws unless you have policemen (auditors).

188) Do What You Set Out to Do

189) Push through!

To Make Decisions Effectively...

190) Recognize the Power of Knowing How to Deal with Not Knowing

191) Recognize that your goal is to come up with the best answer, that the probability of your having it is small, and that even if you have it, you can't be confident that you do have it unless you have other believable people test you.

192) Understand that the ability to deal with not knowing is far more powerful than knowing

a) Embrace the power of asking: "What don't I know, and what should I do about it?"

b) Finding the path to success is at least as dependent on coming up with the right questions as coming up with answers.

193) Remember that your goal is to find the best answer, not to give the best one you have.

194) While everyone has the right to have questions and theories, only believable people have the right to have opinions

195) Constantly worry about what you are missing.

a) Successful people ask for the criticism of others and consider its merit.

b) Triangulate your view.

196) Make All Decisions Logically, as Expected Value Calculations

197) Considering both the probabilities and the payoffs of the consequences, make sure that the probability of the unacceptable (i.e., the risk of ruin) is nil.

a) The cost of a bad decision is equal to or greater than the reward of a good decision, so knowing what you don't know is at least as valuable as knowing.

b) Recognize opportunities where there isn't much to lose and a lot to gain, even if the probability of the gain happening is low.

c) Understand how valuable it is to raise the probability that your decision will be right by accurately assessing the probability of your being right.

d) Don't bet too much on anything. Make 15 or more good, uncorrelated bets.

198) Remember the 80/20 Rule, and Know What the Key 20% Is

199) Distinguish the important things from the unimportant things and deal with the important things first.

a) Don't be a perfectionist

b) Since 80% of the juice can be gotten with the first 20% of the squeezing, there are relatively few (typically less than five) important things to consider in making a decision.

c) Watch out for "detail anxiety,"

d) Don't mistake small things for unimportant things, because some small things can be very important

200) Think about the appropriate time to make a decision in light of the marginal gains made by acquiring additional information versus the marginal costs of postponing the decision.

201) Make sure all the "must do's" are above the bar before you do anything else.

202) Remember that the best choices are the ones with more pros than cons, not those that don't have any cons. Watch out for people who tend to argue against something because they can find something wrong with it without properly weighing all the pros against the cons.

203) Watch out for unproductively identifying possibilities

without assigning them probabilities, because it screws up prioritization.

204) Understand the concept and use the phrase “by and large.”

a) When you ask someone whether something is true and they tell you that “It’s not totally true,” it’s probably true enough.

205) Synthesize

206) Understand and connect the dots.

207) Understand what an acceptable rate of improvement is, and that it is the level and not the rate of change that matters most.

208) If your best solution isn’t good enough, think harder or escalate that you can’t produce a solution that is good enough.

209) Avoid the temptation to compromise on that which is uncompromisable.

210) Don’t try to please everyone

What Follows is the Meat…

1) Trust in Truth
So...

... 2) Realize that you have nothing to fear from truth. Understanding, accepting, and knowing how to effectively deal with reality are crucial for achieving success. Having truth on your side is extremely powerful. While the truth itself may be scary—you have a weakness, you have a deadly disease, etc.—knowing the truth will allow you to deal with your situation better. Being truthful, and letting others be truthful with you, allows you to explore your own thoughts and exposes you to the feedback that is essential for your learning. Being truthful is an extension of your freedom to be you; people who are one way on the inside and another on the outside become conflicted and often lose touch with their own values. It's difficult for them to be happy, and almost impossible for them to be at their best. While the first-order effects of being radically truthful might not be desirable, the second- and third-order effects are great.

Do you agree with this?

... 3) Create an environment in which everyone has the right to understand what makes sense and no one has the right to hold a critical opinion without speaking up about it.

... 4) Be extremely open. Openness leads to truth and trust. Being open about what you dislike is especially important, because things you don't like need to be changed or resolved. Discuss your issues until you are in synch or until you understand each other's positions and can determine what should be done. As someone I worked with once explained, "It's simple - just don't filter." The main reason Bridgewater performs well is that all people here have the power to speak openly and equally and because their views are judged on the merits of what they are saying. Through that extreme openness and a meritocracy of thought, we identify and solve problems better. Since we know we can rely on honesty, we succeed more and we ultimately become closer, and since we succeed and are close, we are more committed to this mission and to each other. It is a self- reinforcing, virtuous cycle.

Do you agree with this?

5) Have integrity and demand it from others. Integrity comes from the Latin word *integer*, meaning "one." People who are one way on the

inside and another way outside lack integrity; they have duality.

The second- and third-order effects of having integrity and avoiding duality are great. Thinking solely about what's accurate instead of how it is perceived helps you to be more focused on important things. It helps you sort the people you are around and the environments you are in. It improves the organization's efficiency and camaraderie because the secret things that people think and don't say to each other drive resentment and key issues underground and don't lead to improvement. Having nothing to hide relieves stress. It also builds trust. For these reasons:

5a) Never say anything about a person you wouldn't say to them directly, and don't try people without accusing them to their face. Badmouthing people behind their backs shows a serious lack of integrity and is counterproductive. It doesn't yield any beneficial change, and it subverts both the people you are badmouthing and the environment as a whole. Next to being dishonest, it is the worst thing you can do at Bridgewater. Criticism is both welcomed and encouraged at Bridgewater, so there is no good reason to talk behind people's backs. You need to follow this policy to an extreme degree. For example, managers should not talk about people who work for them without those people being in the room. If you talk behind people's backs at Bridgewater you are called a slimy weasel.

5b) Don't let "loyalty" stand in the way of truth and openness. In some companies, employees hide their employer's mistakes, and employers do the same in return. In these places, openly expressing your concerns is considered disloyal, and discouraged. Because it prevents people from bringing their mistakes and weaknesses to the surface and because it encourages deception and eliminates the subordinates' right of appeal, unhealthy loyalty stands in the way of improvement. I believe in a truer, healthier form of loyalty, which does the opposite. Healthy loyalty fosters improvement through openly addressing mistakes and weaknesses. The more people are open about their challenges, the more helpful others can be. In an environment in which mistakes and weaknesses are dealt with frankly, those who face their challenges have the most admirable character. By contrast, when mistakes and weaknesses are hidden, unhealthy character is legitimized.

… 6) Be radically transparent. Provide people with as much exposure as possible to what's going on around them. Allowing people direct access lets them form their own views and greatly enhances accuracy and the pursuit of truth. Winston Churchill said, "There is no worse

course in leadership than to hold out false hopes soon to be swept away." The candid question-and-answer process allows people to probe your thinking. You can then modify your thinking to get at the best possible answer, reinforcing your confidence that you're on the best possible path.

6a) Record almost all meetings and share them with all relevant people. Provide tapes of all meetings that don't contain confidential information to enhance transparency. Of course, there are some times when privacy is required. If someone gives you confidential information, keep it confidential until you have permission to disclose it.

… 7) Don't tolerate dishonesty. People typically aren't totally honest, which stands in the way of progress, so don't tolerate this. There's an adjustment process at Bridgewater in which one learns to be completely honest and expect the same from others. Increasingly you engage in logical, unemotional discussions in pursuit of truth in which criticisms are not viewed as attacks, but as explorations of possible sources of problems.

7a) Don't believe it when someone caught being dishonest says they have seen the light and will never do that sort of thing again. Chances are they will. The cost of keeping someone around who has been dishonest is likely to be higher than any benefits.

8) Create a Culture in Which It Is OK to Make Mistakes but Unacceptable Not to Identify, Analyze, and Learn From Them
So…

… 9) Recognize that effective, innovative thinkers are going to make mistakes[49] and learn from them because it is a natural part of the innovation process. For every mistake that you learn from you will save thousands of similar mistakes in the future, so if you treat mistakes as learning opportunities that yield rapid improvements you should be excited by them. But if you treat them as bad things, you will make yourself and others miserable, and you won't grow. Your work environment will be marked by petty back-biting and malevolent barbs rather than by a healthy, honest search for truth that leads to evolution and improvement. Because of this, the more mistakes you make and the more quality, honest diagnoses you have, the more rapid your progress will be. That's not B.S. or just talk. That's the reality of learning.[50]

… 10) Do not feel bad about your mistakes or those of others. Love them! Remember that 1) they are to be expected, 2) they're the first and most essential part of the learning process, and 3) feeling bad about them will prevent you from getting better. People typically feel bad about mistakes because they think in a short-sighted way that mistakes reflect their badness or because they're worried about being punished (or not being rewarded). People also tend to get angry at those who make mistakes because in a short-sighted way they focus on the bad outcome rather than the educational, evolutionary process they're a part of. That's a real tragedy.

I once had a ski instructor who had taught Michael Jordan, the greatest basketball player of all time, how to ski. He explained that Jordan enjoyed his mistakes and got the most out of them. At the start of high school, Jordan was an unimpressive basketball player; he became a champion because he loved using his mistakes to improve. Yet despite Jordan's example and the example of countless other successful people, it is far more common for people to allow ego to stand in the way of learning. Perhaps it's because school learning overemphasizes the value of having the right answers and punishes wrong answers. Good school learners are often bad mistake-based learners because they are bothered by their mistakes. I particularly see this problem in recent graduates from the best colleges, who frequently shy away from exploring their own weaknesses. Remember

that intelligent people who are open to recognizing and learning from their weaknesses substantially outperform people with the same abilities who aren't similarly open.

... 11) Observe the patterns of mistakes to see if they are a product of weaknesses. Connect the dots without ego barriers. If there is a pattern of mistakes, it probably signifies a weakness. Everyone has weaknesses. The fastest path to success is to know what they are and how to deal with them so that they don't stand in your way. Weaknesses are due to deficiencies in learning or deficiencies in abilities. Deficiencies in learning can be rectified over time, though usually not quickly, while deficiencies in abilities are virtually impossible to change. Neither is a meaningful impediment to getting what you want if you accept it as a problem that can be designed around.

... 12) Do not feel bad about your weaknesses or those of others. They are opportunities to improve. If you can solve the puzzle of what is causing them, you will get a gem - i.e., the ability to stop making them in the future. Everyone has weaknesses and can benefit from knowing about them. Don't view explorations of weaknesses as attacks. A person who receives criticism - particularly if he tries to objectively consider if it's true - is someone to be admired.

... 13) Don't worry about looking good - worry about achieving your goals. Put your insecurities away and get on with achieving your goals.

To test if you are worrying too much about looking good, observe how you feel when you find out you've made a mistake or don't know something. If you find yourself feeling bad, reflect - **remind yourself that the most valuable comments are accurate criticisms.** Imagine how silly and unproductive it would be if you thought your ski instructor was blaming you when he told you that you fell because you didn't shift your weight properly. If a criticism is accurate, it is a good thing. You should appreciate it and try to learn from it.

... 14) Get over "blame" and "credit" and get on with "accurate" and "inaccurate." When people hear, "You did XYZ wrong," they have an instinctual reaction to figure out possible consequences or punishments rather than to try to understand how to improve. Remember that what has happened lies in the past and no longer matters, except as a method for learning how to be better in the future. Create an environment in which people understand that remarks such as "You handled that badly" are meant to be helpful (for

the future) rather than punitive (for the past). While people typically feel unhappy about blame and good about credit, that attitude gets everything backwards and can cause major problems. Worrying about "blame" and "credit" or "positive" and "negative" feedback impedes the iterative process essential to learning.

... 15) Don't depersonalize mistakes. Identifying who made mistakes is essential to learning. It is also a test of whether a person will put improvement ahead of ego and whether he will fit into the Bridgewater culture. A common error is to say, "We didn't handle this well" rather than "Harry didn't handle this well." This occurs when people are uncomfortable connecting specific mistakes to specific people because of ego sensitivities. This creates dysfunctional and dishonest organizations. Since individuals are the most important building blocks of any organization and since individuals are responsible for the ways things are done, the diagnosis must connect the mistake to the specific individual by name. Someone created the procedure that went wrong, or decided we should act according to that procedure, and ignoring that fact will slow our progress toward successfully dealing with the problem.

... 16) Write down your weaknesses and the weaknesses of others to help remember and acknowledge them. It's unhealthy to hide them because if you hide them, it will slow your progress towards successfully dealing with them. Conversely, if you don't want them and you stare at them, you will inevitably evolve past them.

... 17) When you experience pain, remember to reflect. You can convert the "pain" of seeing your mistakes and weaknesses into pleasure. If there is only one piece of advice I can get you to remember it is this one. Calm yourself down and think about what is causing your psychological pain. Ask other objective, believable parties for their help to figure it out. Find out what is true. Don't let ego barriers stand in your way. Remember that pains that come from seeing mistakes and weaknesses are "growing pains" that you learn from.[51] Don't rush through them. Stay in them and explore them because that will help build the foundation for improvement. It is widely recognized that 1) changing your deep-seated, harmful behavior is very difficult yet necessary for improvement and 2) doing this generally requires a deeply felt recognition of the connection between your harmful behavior and the pain it causes. Psychologists call this "hitting bottom." Embracing your failures is the first step toward genuine improvement; it is also why "confession" precedes forgiveness in many societies.[52] If you keep doing this you will learn to improve and feel the pleasures of it.

... 18) Be self-reflective and make sure your people are self-reflective. This quality differentiates those who evolve fast from those who don't. When there is pain, the animal instinct is 'fight or flight' (i.e., to either strike back or run away) - reflect instead. When you can calm yourself down, thinking about the dilemma that is causing you pain will bring you to a higher level and enlighten you, leading to progress. That is because the pain you are feeling is due to something being at odds - maybe it's you encountering reality, such as the death of a friend, and not being able to accept it. If when you are calm, you can think clearly about what things are at odds, you will learn more about what reality is like and how to better deal with it. It really will produce progress. If, on the other hand, the pain causes you to tense-up, not think, feel sorry for yourself, and blame others, it will be a very bad experience. So, when you are in pain, try to remember: Pain + Reflection = Progress. It's pretty easy to determine whether a person is reflective or deflective: self-reflective people openly and objectively look at themselves while deflective people don't.

... 19) Teach and reinforce the merits of mistake-based learning. We must bring mistakes into the open and analyze them objectively, so managers need to foster a culture that makes this normal and penalizes suppressing or covering up mistakes. Probably the worst mistake anyone can make at Bridgewater is not facing up to mistakes - i.e., hiding rather than highlighting them. Highlighting them, diagnosing them, thinking about what should be done differently in the future, and then adding that new knowledge to the procedures manual are all essential to our improvement.

19a) The most valuable tool we have for this is the issues log (explained fully later), which is aimed at identifying and learning from mistakes. Using this tool is mandatory because we believe that enforcing this behavior is far better than leaving it optional.

20) Constantly Get in Synch
So…

… 21) Constantly get in synch about what is true and what to do about it. Getting in synch helps you achieve better answers through considering alternative viewpoints. It can take the forms of asking, debating, discussing, and teaching how things should be done. Sometimes it is to make our views on our strengths, weaknesses, and values transparent in order to reach the understanding that helps us move forward. Sometimes it is to be clear about who will do what and the game plan for handling responsibilities. So this process can be both a means of finding the best answers and pushing them ahead. Quality conversations about what is true and what should be done will produce better outcomes and many fewer misunderstandings in the future.

… 22) Talk about "Is it true?" and "Does it make sense?" In a culture that values both independent thinking and innovation, each individual has both the right and the obligation to ensure that what they do, and what we collectively do, in pursuit of excellence, makes sense to them. So, get in synch about these things.

… 23) Fight for right. Discuss or debate important issues with the right relevant parties in an open- minded way until the best answers are determined. This process will maximize learning and mutual understanding. Thrash it out to get to the best answer.

… 24) Be assertive and open-minded at the same time. Just try to find out what is true. Don't try to 'win' the argument. Finding out that you are wrong is even more valuable than being right, because you are learning.

24a) Ask yourself whether you have earned the right to have an opinion. Opinions are easy to produce, so bad ones abound. Knowing that you don't know something is nearly as valuable as knowing it. The worst situation is thinking you know something when you don't.

24b) Recognize that you always have the right to have and ask questions.

24c) Distinguish open-minded people from closed-minded people. Open-minded people seek to learn by asking questions; they realize that what they know is little in relation to what there is to know and

recognize that they might be wrong. Closed-minded people always tell you what they know, even if they know hardly anything about the subject being discussed. They are typically made uncomfortable by being around those who know a lot more about a subject, unlike open-minded people who are thrilled by such company.

24d) Don't have anything to do with closed-minded, inexperienced people. They won't do you any good and there's no helping them until they open their minds, so they will waste your time in the meantime. If you must deal with them, the first thing you have to do is open their minds. Being open-minded is far more important than being bright or smart.

24e) Be wary of the arrogant intellectual who comments from the stands without having played on the field. And avoid that trap yourself.

24f) Watch out for people who think it's embarrassing not to know. They're dangerous.

... 25) Make sure responsible parties are open-minded about the questions and comments of others. They are required to explain the thinking behind a decision openly and transparently so that all can understand and assess it. Further, in the event of disagreement, an appeal should be made to either the manager's boss or an agreed-upon, knowledgeable group of others, generally including people more believable than and senior to the decision-maker. The person(s) resolving the dispute must do this objectively and fairly; otherwise our system will fail at maintaining its meritocracy of ideas.

... 26) Recognize that conflicts are essential for great relationships because they are the means by which people determine whether their principles are aligned and resolve their differences. I believe that in all relationships, including the most treasured ones, 1) there are principles and values each person has that must be in synch for the relationship to be successful and 2) there must be give and take. I believe there is always a kind of negotiation or debate between people based on principles and mutual consideration. What you learn about each other via that "negotiation" either draws you together or drives you apart. If your principles are aligned and you can work out your differences via a process of give and take, you will draw closer together. If not, you will move apart. It is through such open discussion, especially when it comes to contentious issues, that people can make sure there are no misunderstandings. If that open discussion of differences doesn't happen on an ongoing basis, the gaps in

perspectives will widen until inevitably there is a major clash. Ironically, people who suppress the mini-confrontations for fear of conflict tend to have huge conflicts later, which can lead to separation, precisely because they let minor problems fester. On the other hand, people who address the mini-conflicts head-on in order to straighten things out tend to have the great, long-lasting relationships. That's why I believe people should feel free to say whatever they really think.

26a) Expect more open-minded disagreements at Bridgewater than at most other firms. They fuel the learning that helps us be at our best. Sometimes when there are disagreements, people get angry. But you should remind them that the management at most other companies doesn't welcome disagreement or encourage open debate. As a result, there is less of both. So instead of getting angry, they should welcome the fact that disagreements and open debate are encouraged here.

26b) There is giant untapped potential in disagreement, especially if the disagreement is between two or more thoughtful people - yet most people either avoid it or they make it an unproductive fight. That's tragic.[53]

… 27) Know when to stop debating and move on to agreeing about what should be done. I have seen people who agree on the major issues waste hours arguing over details.

It's more important to do big things well than to do small things perfectly. Be wary of bogging down amid minor issues at the expense of time devoted to solidifying important agreements.

27a) However, when people disagree on the importance of debating something, it should be debated. Operating otherwise would essentially give someone (typically the boss) a de facto veto right.

27b) Recognize that "there are many good ways to skin a cat." Your assessment of how responsible parties are doing their jobs should not be based on whether they're doing it your way but whether they're doing it in a good way.

27c) For disagreements to have a positive effect, people evaluating an individual decision or decision-maker must view the issue within a broader context. For example, if the responsible party being challenged has a vision, and the decision under disagreement involves a small detail, evaluate the decision within the context of the broader vision. The ensuing discussion resulting from challenging someone's decision will help people understand all the considerations behind it.

27d) Distinguish between 1) idle complaints and 2) complaints that are meant to lead to improvement.

… 28) Appreciate that open debate is not meant to create rule by referendum. It is meant to provide the decision-maker with alternative perspectives in anticipation of a better answer. It can also be used to enhance understanding of others' views and abilities and, over time, assess whether someone should be assigned a responsibility. It doesn't mean there can't be some designs in which a group oversees a person. But that's designed and embedded in the organizational structure, specifying the people responsible for oversight who are chosen because of their knowledge and judgment.

… 29) Evaluate whether an issue calls for debate, discussion, or teaching. Debate, discussion, and teaching are all ways of getting in synch, but they work differently and the approach you choose should reflect your goal and the relative believability of the people involved. Debate is generally among approximate equals; discussion is open-minded exploration among people of various levels of understanding; and teaching is between people of different levels of understanding.

29a) To avoid confusion, make clear which kind of conversation (debate, discussion, or teaching) you are having and recognize that the purpose is ultimately to get at truth, not to prove that someone is right or wrong.

29b) Communication aimed at getting the best answer should involve the most relevant people. Not everyone should randomly probe everyone else, because that's an unproductive waste of time. People should consider their own levels of believability and understanding to assess if the probing makes sense. As a guide, the most relevant people are your managers, direct reports, and/or agreed experts. They are the most impacted by and most informed about the issues under discussion, and so they are the most important parties to be in synch with. If you can't get in synch, you should escalate the disagreement.

29c) Communication aimed at educating or boosting cohesion should involve a broader set of people than would be needed if the aim were just getting the best answer. Less experienced, less believable people will be included. They may not be necessary to decide an issue, but if you aren't in synch with them, that lack of understanding will likely undermine morale and the organization's efficiency. In cases where you have people who are both not believable and highly opinionated (the worst combination), you will drive their uninformed opinions underground if you don't get in synch. Conversely, if you are willing

to be challenged, and others behave the same way, you can demand that all critical communication be done openly.

Imagine if a group of us were trying to learn how to play golf with Tiger Woods, and he and a new golfer were debating how to swing the club. Would it be helpful or harmful to our progress to ignore their different track records and experience? Of course it would be harmful and plain silly to treat their points of view equally, because they have different levels of believability. It is better to listen to what Tiger Woods has to say, without constant interruptions by some know-nothing arguing with him. While I believe this is true, it would be most productive if Tiger Woods gave his instructions and then answered questions. However, because I'm pretty extreme in believing that it is important to obtain understanding rather than accepting doctrine at face value, I also think the new golfer shouldn't accept what Tiger Woods has to say as right only because he has won loads of tournaments and has years of experience playing golf. In other words, I believe the new golfer shouldn't stop questioning Tiger until he is confident he has found truth. At the same time, I also think the new golfer would be pretty dumb and arrogant to believe he's probably right and the champion golfer is wrong. So he should approach his questioning with that perspective rather than overblown confidence. It would be really bad for the group's learning if all the people in the group treated what the new golfer and Tiger Woods had to say as equally valuable. I feel exactly the same way about getting at truth at Bridgewater. While it's good to be open-minded and questioning, it's dumb to treat the views of people with great track records and experience the same as those without track records and experience.

29d) Leverage your communication. While open communication is very important, the challenge is figuring out how to do it in a time-efficient way. It is helpful to use leveraging techniques like open e-mails posted on a FAQ board. If the reporting ratios are organized as described in the principles on organizational design, there should be ample time for this. The challenges become greater the higher you go in the reporting hierarchy because the number of people affected by your actions and who have opinions and/or questions grows larger than just two reporting levels down. In such cases, you will need even greater leverage and prioritization (e.g., having some of the questions answered by a well-equipped party who works for you, asking people to prioritize their questions by urgency or importance, etc).

… 30) Don't treat all opinions as equally valuable. Almost everyone has an opinion, but many are worthless or harmful. The views of

people without track records are not equal to the views of people with strong track records. Treating all people equally is more likely to lead away from truth than toward it. People without records of success who are nonetheless confident about how things should be done are either naïve or arrogant. In either case, they're potentially dangerous to themselves and others. However, all views should be considered in an open-minded way, albeit placed in the proper context of experience and track record. Ultimately, the proof is in the pudding: can you handle your responsibilities well? As a general rule, if you can, then you can have an opinion of how to do it—if you can't, you can't.

30a) A hierarchy of merit is not only consistent with a meritocracy of ideas but essential for it. Not only is better decision-making enhanced, so is time management. It's not possible for everyone to debate everything all the time and still get work done effectively.

… 31) Consider your own and others' "believabilities." By believability, I mean the probability that a person's view will be right. While we can never know this precisely, we can roughly assess it according to the quality of a person's reasoning and their track record. Of course, different people will have different views of their own and other's believability, which is fine. Just recognize that this is a reality that is relevant in a number of ways. Ask, "Why should I believe you?" and "Why should I believe myself?"

31a) Ask yourself whether you have earned the right to have an opinion. As a general rule, if you have a demonstrated track record, then you can have an opinion of how to do it—if you don't, you can't, though you can have theories and questions.

31b) People who have repeatedly and successfully accomplished the thing in question and have great explanations when probed are most believable. Those with one of those two qualities are somewhat believable; people with neither are least believable.

At the same time, people's ideas should always be assessed on their merit in order to encourage them to always think in an open-minded way. I have seen that inexperienced people can have great ideas, sometimes far better than more experienced people, though often much worse. So we must be attuned to both the good and the bad and allow people to build their own track records and their own level of believability. Because of Bridgewater's radical openness, you can see how we make our assessments of that.

Someone new who doesn't know much, has little believability, or isn't confident in his views should ask questions. On the other hand, a

highly believable person with experience and a good track record who is highly confident in his views should be assertive. Everyone should be upfront in expressing how confident they are in their thoughts. A suggestion should be called a suggestion; a firmly held conviction should be presented as such. Don't make the mistake of being a dumb shit with a confident opinion.

31c) If someone asks you a question, think first whether you're the responsible party/right person to be answering the question.

… 32) Spend lavishly on the time and energy you devote to "getting in synch" because it's the best investment you can make. You will inevitably need to prioritize because of time constraints, but beware of the tremendous price of skimping on quality communication.

… 33) If it is your meeting to run, manage the conversation. There are many reasons why meetings go poorly, but frequently it is because of a lack of clarity about the topic or the level at which things are being discussed (e.g., the principle/machine level, the case at hand level, or the specific fact level). To manage the meetings well:

33a) Make it clear who the meeting is meant to serve and who is directing the meeting. Every meeting is for the purpose of meeting someone's goals; that person is the responsible party for the meeting and decides what s/he wants to get out of it and how s/he will do so. Meetings without a clear responsible party run a high risk of being directionless and unproductive.

33b) Make clear what type of communication you are going to have in light of the objectives and priorities. For example, if the goal of the meeting is to have people with different opinions work through their differences to try to get closer to what is true and what to do about it (i.e., open-minded debate), you will run it differently than if the meeting is meant to educate. Debating issues takes time. That time increases geometrically depending on the number of people participating in the discussion, so you have to carefully choose the right people in the right numbers to suit the decision that needs to be made. In any discussion try to limit the participation to those whom you value most in light of your objectives. The worst way to pick people is based on whether their conclusions align with yours.

33c) Lead the discussion by being assertive and open-minded. Group-think and solo-think are both dangerous.

33d) A small group (3 to 5) of smart, conceptual people seeking the right answers in an open-minded way will generally lead to the best

answer. Next best is to have decisions made by a single smart, conceptual decision-maker, but this is a much worse choice than the former. The worst way to make decisions is via large groups without a smart, conceptual leader. Almost everyone thinks they're smart and conceptual, but only a small percentage of any group really is. Even when there is a large number of smart, conceptual leaders, more than five trying to make a decision is very inefficient and difficult. This is especially the case when people think they need to satisfy everyone.

33e) 1 + 1 = 3. Two people who collaborate well will be about three times as effective as the two of them operating independently because they will see what the other might miss, they can leverage each other, and they can hold each other to higher standards. This symbiotic relationship of adding people to a group will have incremental benefits ($2 + 1 = 4.25$) up to a point at which there are no incremental gains and beyond which adding people produces incremental losses in effectiveness. That is because 1) the marginal benefits diminish as the group gets larger—e.g. two or three people might be able to cover most of the important perspectives so adding more people doesn't bring much more, and 2) larger group interactions are less efficient than smaller group interactions. Of course, what's best in practice is a function of 1) the quality of the people and the differences of the perspectives that they bring and 2) how well the group is managed. As noted before, each group should have someone who is responsible for managing the flow to get out of the meeting the most possible.

33f) Navigate the levels of the conversation clearly. When considering an issue or situation, there should be two levels of discussion: the case at hand and the relevant principles that help you decide how the machine should work. Since the case at hand is a manifestation of one or more relevant principles, you need to clearly navigate between these levels in order to 1) handle the case well, 2) improve the machine so that future cases like this will be handled better in the future, and 3) test the effectiveness of your principles.

33g) Watch out for "topic slip." Topic slip is the random and inconclusive drifting from topic to topic without achieving completion. Tip: Avoid topic slip by tracking the conversation on a whiteboard so everyone can see where you are.

33h) Enforce the logic of conversations. There is a tendency for people's emotions to heat up when there is a disagreement, so focusing on the logic of your exchange will facilitate communication. If you are calm and analytical in listening to others' points of view, it is more difficult for them to shut down a logical exchange than if you

get emotional or allow them to get emotional.

33i) Worry about substance more than style. This is not to say that some styles aren't more effective than others with different people and in different circumstances, but don't let style or tone prevent you from getting in synch. I often see people complain about the delivery of a criticism in order to deflect from its substance. If you think someone's style is an issue, box it as a separate issue to get in synch about (start by asking whether it's true and whether it's important).

33j) Achieve completion in conversations. The main purpose of discussion is to achieve completion and get in synch, which leads to decisions and or actions. Conversations often fail to reach completion. This amounts to a waste of time because they don't result in conclusions or productive actions. When there is an exchange of ideas, especially if there is a disagreement, it is important to end it by stating the conclusions. If there is agreement, say it; if not, say that. Where further action has been decided, get those tasks on a to-do list, assign people to do them, and specify due dates. Write down your conclusions, working theories, and to-do's in places that will lead to their being used as foundations for continued progress.

33k) Have someone assigned to maintain notes in meetings and make sure follow-through happens. Generally speaking, to avoid distraction during the discussion itself, prioritizing follow-ups and assignments should be done afterwards.

33l) Be careful not to lose personal responsibility via group decision-making. Too often groups will make a decision to do something without assigning personal responsibilities so it is not clear who is supposed to do what. Be clear in assigning personal responsibilities.

… 34) Make sure people don't confuse their right to complain, give advice, and debate with the right to make decisions. Discussion does not mean rule by referendum. While our culture is marked by extreme openness, some people mistakenly assume we have group decision-making in which all views are treated equally and consensus rules. Since not all views are equally valuable, I don't believe in consensus decision-making or referendums. We operate not only by open debate but also by clearly assigning personal responsibility to specific people. While these two values might seem at odds, personal responsibility and open debate work together to synthesize effective decision-making at Bridgewater. Everyone does not report to everyone here. Instead, responsibility and authority are assigned to individuals based on our assessment of their ability to handle them. I want the most

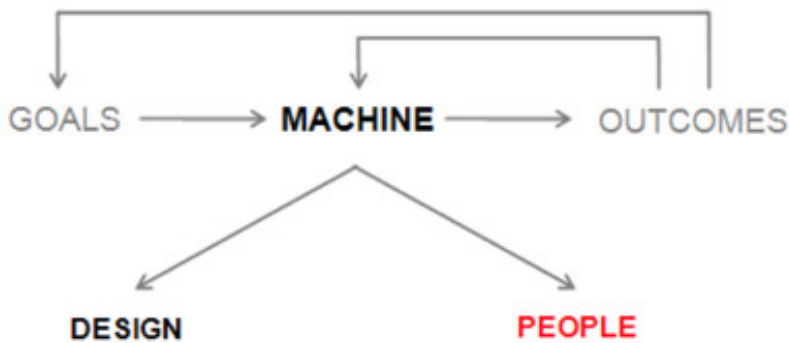
capable individuals assigned to each job. We hold them accountable for their outcomes, but we also give them the authority to achieve those outcomes. It is perfectly okay for a responsible party to carry through a decision he thinks is best even when others who are knowledgeable disagree, although this disagreement should be considered and weighed seriously. We have, and should have, an explicit decision-making hierarchy, ideally based on merit.[54]

... 35) Recognize that getting in synch is a two-way responsibility. In any conversation there is a responsibility to transmit and a responsibility to receive. Misinterpretations are going to take place. Often, difficulty in communication is due to people having different ways of thinking (e.g., left-brained thinkers talking to right-brained thinkers). The parties involved should 1) realize that what they might be transmitting or receiving might not be what was meant, 2) consider multiple possibilities, and 3) do a back and forth so that they can get in synch. People do the opposite — confidently thinking that they've communicated their intent clearly, not considering multiple possibilities and then blaming the other parties for the misunderstanding. Learn lessons from your problems in communications to improve.

... 36) Escalate if you can't get in synch. If you can't understand or reconcile points of view with someone else, agree on a third party to provide guidance. This person could be your manager or another agreed-upon, believable person or group who can resolve the conflict objectively, fairly, and sensibly. This mechanism is a key element of our culture and crucial for maintaining a meritocracy of ideas.

37) Recognize the Most Important Decisions You Make Are Who You Choose to Be Your Responsible Party
So...

... 38) Remember that almost everything good comes from having great people operating in a great culture. I cannot emphasize strongly enough how important the selection, training, testing, evaluation, and sorting out of people is. If you put the goals and the tasks in the hands of people who can do them well, and if you make crystal clear that they are personally responsible for achieving the goals and doing the tasks, they should produce excellent results. This section is about the people part of the feedback loop process, diagramed below.



... 39) First, match the person to the design. Understand what attributes matter most for a job, and then ascertain whether an individual has them. This matching process requires 1) visualizing the job and the qualities needed to do it well and then 2) ascertaining if the individual has those qualities.

Look for believable responsible parties who love producing great results.[55] Remember that values are most important—e.g., if "work" is what people have to do to make money, I don't want people to "work" here. I only want people at Bridgewater who are joining us on an important, shared mission to do great things.

39a) Most importantly, find people who share your values. At Bridgewater, those key values are a drive for excellence, truth at all costs, a high sense of ownership, and strong character (by character, I mean the willingness to do the good but difficult things).

39b) Look for people who are willing to look at themselves objectively and have character. These are not natural talents—they are qualities that anyone can acquire. They are also the qualities that have the biggest influence on whether or not I respect someone. They are essential for success.

39c) Conceptual thinking and common sense are required in order to assign someone the responsibility for achieving goals (as distinct from tasks).

... 40) Recognize that the inevitable responsible party is the person who bears the consequences of what is done. Because of this, the RP must choose wisely when delegating responsibilities to others, and he must incentivize and manage them appropriately. There is no escaping that. For example, you are the inevitable RP for taking care of your health because you're the one who inevitably bears the consequences. If you're sick, you might choose to delegate the responsibility of figuring out what do to about it to a doctor. However, it is your responsibility to pick the right doctor because you will bear the consequences of that decision. While it is, of course, also the doctor's responsibility to handle the responsibilities that you delegate to him, you still need to make sure that his incentives are aligned with his responsibilities and that he is doing his job well. The inevitable responsible party can't delegate all his responsibilities away and expect good outcomes, even in cases in which he has no expertise. So you can't escape hiring and managing properly.

... 41) By and large, you will get what you deserve over time. The results that you end up with will reflect how you and your people learn to handle things. So take control of your situation and hold yourself and others accountable for producing great results. People who wish for a great result but are unwilling to do what it takes to get there will fail.

... 42) The most important responsible parties are those who are most responsible for the goals, outcomes, and machines (they are those higher in the pyramid). Give me someone who can effectively be responsible for an area—i.e., who can design, hire, and sort to achieve the goal, and I can be comfortable about all that is in that area. Therefore, they are the most important people to choose and manage well.

... 43) Choose those who understand the difference between goals and tasks to run things. Otherwise you will have to do their jobs for them. The ability to see and value goals is largely innate, though it

improves with experience. It can be tested for, though no tests are perfect.

So…

… 45) Think about their very different values, abilities, and skills. Values are the deep- seated beliefs that motivate behaviors; people will fight for their values, and values determine people's compatibility with others. Abilities are ways of thinking and behaving. Some people are great learners and fast processors; others possess common sense; still others think creatively or logically or with supreme organization, etc. Skills are learned tools, such as being able to speak a foreign language or write computer code.

While values and abilities are unlikely to change much, most skills can be acquired in a limited amount of time (e.g., most master's degrees can be acquired in two years) and often change in worth (e.g., today's best programming language can be obsolete in a few years).

It is important for you to know what mix of qualities is important to fit each role and, more broadly, with whom you can have successful relationships. In picking people for long-term relationships, values are most important, abilities come next, and skills are the least important.

… 46) Understand what each person who works for you is like so that you know what to expect from them.

… 47) Recognize that the type of person you fit in the job must match the requirements for that job.

How People's Thinking Abilities Differ

In my many years of running Bridgewater I have learned that people's thinking abilities differ and that it is important to understand these differences so that they are appropriately considered when assigning people to roles. I have tried to find experts who understood these differences to help me better understand and test for them. I have found a few truly insightful people amid a mass of mediocrity.[56] I have also found that there are all sorts of theories from all sorts of people about how people think and why, so very little should be treated as fact. It seems that "political correctness" and the reluctance to objectively discuss differences in innate abilities have stood in the way of forthright and thoughtful research on this important subject. While the search for good advice and tests has been challenging, it has also been invaluable. What follows is a mix of my theories based on my personal observations and a collection of valuable things I have learned from others.[57] I know I have only

scratched the surface of learning about how people think, why they think differently, and how to test for these different thinking abilities, so I am excited about the potential of learning more.

I believe, but am not certain about, the following:

• **There are two big differences in how people think that are due to the brain's coming in two big halves and different people relying differently on them.** [58] This was explained by Caltech Professor Roger Sperry, who won a Nobel Prize in medicine for attributing these two ways of thinking to different reliances on the two hemispheres. As a result of this discovery, these two ways of thinking are called "left-brained" and "right-brained." Professor Sperry helped us understand that:

○ The left hemisphere reasons sequentially, analyzes details, and excels at linear analysis. Left-brained thinkers do these things well. They are also called linear thinkers. When they excel at this type of thinking they are called "bright."[59]

○ The right hemisphere reasons holistically, recognizes themes, and synthesizes the big picture. Right-brained thinkers do these things well. People who think this way are also called lateral thinkers. Those who excel at this kind of thinking are called "smart."[60]

Long before I knew that there was a Professor Sperry I saw these differences. I bet you've seen them too.

On a scale of -5 to +5 – left-brained to right-brained – where do you think you fall?

How confident are you that your self-assessment is right?

• **Some people see details (trees), and others see big pictures (forests).** Those who "see trees" see the parts most vividly and don't readily relate the parts to each other in order to see the big picture—e.g., they might prefer more literal, precise paintings. They are typically left-brained. Others connect the dots to pictures. In fact, they typically don't even see the dots; they just see the pictures. They are typically right-brained. You can detect which type people are by observing what they focus on. Detailed thinkers can lose sight of the big picture and are more likely to focus in on a part than to go to the higher level and see the

relationship between parts. For example, a person who focuses on details can be thrown off by word mistakes like “there“ instead of “their,” while big-picture thinkers won’t even notice the mistake. Similarly, big-picture thinkers can often understand the meaning of sentences even when key words are reversed—e.g., when “up” is mistakenly used instead of “down,” they understand that the person speaking couldn’t have meant “up” in that context. That is because their attention is focused on the context first and the details second. When describing the same meeting, these two different types will frequently focus on completely different things and disagree on their interpretations. In discussions, they can frustrate each other and discount what the other is saying. Similarly, a person of one type interviewing another type will usually yield an unsatisfactory result.

On a scale of -5 to +5 – “detailed” to “big picture” – where do you think you fall?

How confident are you that your self-assessment is right?

• **Some people rely more on remembering what they were taught when making decisions, and others rely more on their independent reasoning.** Let’s call the first group memory-based learners and the second group reasoning-based thinkers. When using the word “learning” I intend to convey “acquiring knowledge by being taught,” and when using the word “thinking” I mean “figuring it out for oneself.” Memory-based learners approach decision-making by remembering what they were taught. They draw on their memory banks and follow the instructions stored there. They are typically left-brained. Reasoning-based thinkers pay more attention to the principles behind what happens. They are typically right-brained. You can tell the difference when what is learned (e.g., CAPM) conflicts with what is logical (e.g., All Weather). People who rely on memory-based learning will typically be more skeptical of unconventional ideas because their process is to more readily accept what they have been told and because they are less able to assess it for themselves. Those who rely on more on reasoning won’t care much about convention and will assess ideas on their merits. Those who rely on memory-based learning also tend to align themselves with the consensus more than people who rely on reasoning. Memory- based learners are more willing to accept the status quo, while reasoning-based thinkers are less biased by it. They are more likely to be innovative, while those who rely on

learning are likelier to be cautious. Performance in school will correlate well with the quality of one's learning-based thinking, but will not reliably correlate with one's reasoning-based thinking. The most able learners are easily found, since they are, or were, the best students from the best schools. The best thinkers are tougher to find, as there are no obvious funnels through which they pass, especially before they develop track records in the "real world."

On a scale of -5 to +5 –"learning" to "thinking" – where do you think you fall?

How confident are you that your self-assessment is right?

• **Some people are focused on daily tasks, and others are focused on their goals and how to achieve them.** Those who "visualize" best can see the pictures (rather than the dots) over time. They have a strong capacity to visualize and will be more likely to make meaningful changes and anticipate future events. They are the most suitable for creating new things (organizations, projects, etc.) and managing organizations that have lots of change. We call them "creators." They are typically right-brained thinkers. By contrast, those who are focused on the daily tasks are better at managing things that don't change much or require repetitive processes done reliably, and are typically best at doing clearly specified tasks. They see things much more literally and tend to make incremental changes that reference what already exists. They are slower to depart from the status quo and more likely to be blindsided by sudden events. They are typically left-brained thinkers.

On a scale of -5 to +5 – "tasks" to "goals" – where do you think you fall?

How confident are you that your self-assessment is right?

• **Some people are "planners," and others are "perceivers."** Planners like to focus on a plan and stick with it, while perceivers are prone to focus on what's happening around them and more readily adapt to it. Perceivers see things happening and work backward to understand the cause and how to respond; they work from the outside in; they also see many more possibilities that they compare and choose from; often they see so many that they

are confused by them. In contrast, planners work from the inside out, figuring out first what they want to achieve and then how things should unfold. Planners and perceivers have trouble appreciating each other. While a perceiver likes to see new things and change directions often, this is discomforting to planners, who prefer to stick to a plan. Planners weigh precedent much more heavily in their decision- making, and assume that if it was done before in a certain way, it should be done again in the same way, while perceivers tend to optimize on the spot. Planners are typically left-brained, and perceivers are typically right-brained.

On a scale of -5 to +5 – "planner" to "perceiver" – where do you think you fall?

How confident are you that your self-assessment is right?

• **Some people are driven more by their emotions, and others are driven more by their intellect.** We all have emotions and intellect. When they conflict, some people will give in to their emotions, while others maintain control of their emotions and are driven by their intellect. I am told this is more due to relative reliance on the amygdala and the prefrontal cortex, but I'm not sure. Once again, these two different types typically can't understand and typically frustrate each other.

On a scale of -5 to +5 –"driven by emotion" to "driven by intellect" – where do you think you fall?

How confident are you that your self-assessment is right?

• **Some people are risk-takers, and others are risk-averse.**

On a scale of -5 to +5 – "risk-averse" to "risk-takers" – where do you think you fall?

How confident are you that your self-assessment is right?

• **Some people are introverts, and others are extroverts.** The most important difference between them is their willingness to fight for truth. Introverts tend to find the necessary conflicts more difficult. There are lots of important ways in which people think differently that I won't continue on about.

On a scale of -5 to +5 – "introvert" to "extrovert" – where do

you think you fall?

How confident are you that your self-assessment is right?

… 48) Use personality assessment tests and quality reflections on experiences to help you identify these differences. These should be done openly so that these important differences are embraced and considered in our interactions.

… 49) Understand that different ways of seeing and thinking make people suitable for different jobs. Since nature created different ways of thinking and since nature never creates anything without a purpose,[61] each way of thinking has purposes. Often, thinking well for some purposes necessitates thinking poorly for others. It is highly desirable to understand one's own ways, and others' ways, of thinking, and their best applications. While there is no best quality, there are certainly some qualities that are more suitable for some jobs (e.g., being a math wiz is important for a job that requires a math wiz). So don't treat everyone the same.

Sometimes I see people dealing with each other, especially in groups, without regard for these differences. This is nonsensical. Both people expressing their own views and those considering others' views need to take into account their differences. These differences are real, so it's dumb to pretend they don't exist.

49a) People are best at the jobs that require what they do well.

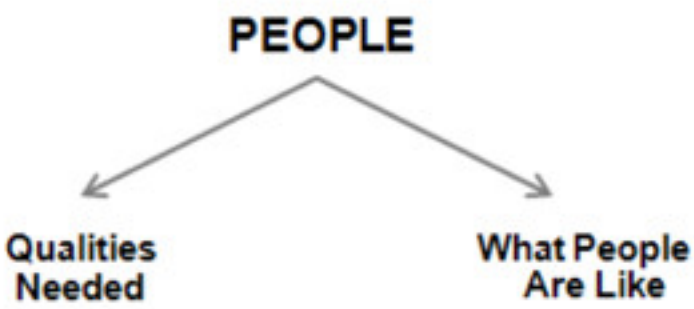
49b) If you're not naturally good at one type of thinking, it doesn't mean you're precluded from paths that require that type of thinking, but it does require that you either work with someone who has that required way of thinking (which works best) or learn to think differently (which is very difficult and sometimes impossible).

… 50) Don't hide these differences. Explore them openly with the goal of figuring out how you and your people are built so you can put the right people in the right jobs and clearly assign responsibilities. This is good for both your team and for Bridgewater as a whole.

… 51) Remember that people who see things and think one way often have difficulty communicating and relating to people who see things and think another way. Keep in mind how difficult it is to convey what it means to think in an alternative way for the same reason it would be difficult to convey what the sense of smell is to someone who doesn't have the ability to smell.

52) Hire Right, Because the Penalties of Hiring Wrong Are Huge
So…

… 53) Think through what values, abilities, and skills you are looking for. A lot of time and effort is put into hiring a person, and substantial time and resources are invested in new employees' development before finding out whether they are succeeding. Getting rid of employees who aren't succeeding is also difficult, so it pays to be as sure as possible in hiring. Refer to our diagram that shows how to achieve your goals by comparing them with the outcomes you're getting, and think of the people part as shown below. By constantly comparing the picture of what the people are like with the qualities needed, you will hire better and evolve faster.



… 54) Weigh values and abilities more heavily than skills in deciding whom to hire. Avoid the temptation to think narrowly about filling a job with a specific skill.[62] While having that skill might be important, what's most important is determining whether you and they are working toward the same goals and can work in the same ways and share the same values.

… 55) Write the profile of the person you are looking for into the job description.

… 56) Select the appropriate people and tests for assessing each of these qualities and compare the results of those assessments to what you've decided is needed for the job. Synthesize the results of those tests to see if there is a "click."

56a) Remember that people tend to pick people like themselves, so pick interviewers who can identify what you are looking for. For example, if you're looking for a visionary, pick a visionary to do the

interview where you test for vision. If there is a mix of qualities you're looking for, put together a group of interviewers who embody all of these qualities collectively. Don't choose interviewers whose judgment you don't trust (in other words, choose believable interviewers).

56b) Understand how to use and interpret personality assessments. These can be a fantastic tool in your arsenal for quickly getting a picture of what people are like—abilities, preferences, and style.

They are often much more objective and reliable than interviews.

56c) Pay attention to people's track records.

56d) Dig deeply to discover why people did what they did. Knowing what they did is valuable only in helping you figure out what they are like. Understanding the "why" behind people's actions will tell you about their qualities and as a result, what you can probably expect from them.

***56e) Recognize that performance in school, while of some value in making assessments, doesn't tell you much about whether the person has the values and abilities you are looking* for.** Memory and processing speed tend to be the abilities that determine success in school (largely because they're easier to measure and grade) and are most valued, so school performance is an excellent gauge of these. School performance is also a good gauge for measuring willingness and ability to follow directions as well as determination. However, school is of limited value for teaching and testing common sense, vision, creativity, or decision-making.[63] Since those traits all outweigh memory, processing speed, and the ability to follow directions in most jobs, you must look beyond school to ascertain whether the applicant has the qualities you're looking for.

56f) Ask for past reviews. Don't rely exclusively on the candidate for information about their track record; instead, talk to people who know them (believable people are best), and look for documented evidence.

56g) Check references.

… 57) Look for people who have lots of great questions. These are even more important than great answers.

… 58) Make sure candidates interview you and Bridgewater. Show them the real picture. For example, share these principles with them to show how we operate and why. Have them listen to the tapes to see the reality.

… 59) Don't hire people just to fit the first job they will do at Bridgewater; hire people you want to share your life with. The best relationships are long term and based on shared missions and values. Also, turnover is generally inefficient because of the long time it requires for people to get to know each other and Bridgewater. Both the people you work with and the company itself will evolve in ways you can't anticipate. So hire the kind of people you want to be with on this long-term mission.

… 60) Look for people who sparkle, not just "another one of those." I have too often seen people hired who don't sparkle, just because they have clearly demonstrated they were "one of those." If you're looking for a plumber you might be inclined to fill the job with someone who has years of experience, without confirming whether he has demonstrated the qualities of an outstanding plumber. Yet the difference between hiring an ordinary versus an extraordinary plumber (or any other expert) is huge. So when reviewing a candidate's background, you must identify how this person has demonstrated himself to be outstanding. The most obvious demonstration is outstanding performance within an outstanding peer group. If you're less than excited to hire someone for a particular job, don't do it. The two of you will probably make each other miserable.

… 61) Hear the click: Find the right fit between the role and the person. Remember that your goal is to put the right people in the right design. First understand the responsibilities of the role, then what qualities are needed to fulfill them excellently, and then ascertain whether an individual has them. This matching process requires 1) visualizing the job and the qualities needed to do it well and 2) ascertaining if the individual has those qualities. I describe this process as "hearing the click," because that's the sound of finding the right fit between the role and the individual.

… 62) Pay for the person, not for the job. Look at what they were paid before and what people with comparable credentials get paid and pay some premium to that, but don't pay based on the job title.

… 63) Recognize that no matter how good you are at hiring, there is a high probability that the person you hire will not be the great person you need for the job. Continue the "interviewing" process as intensely after they are on the job as before, and don't settle.

64) Manage as Someone Who Is Designing and Operating a Machine to Achieve the Goal

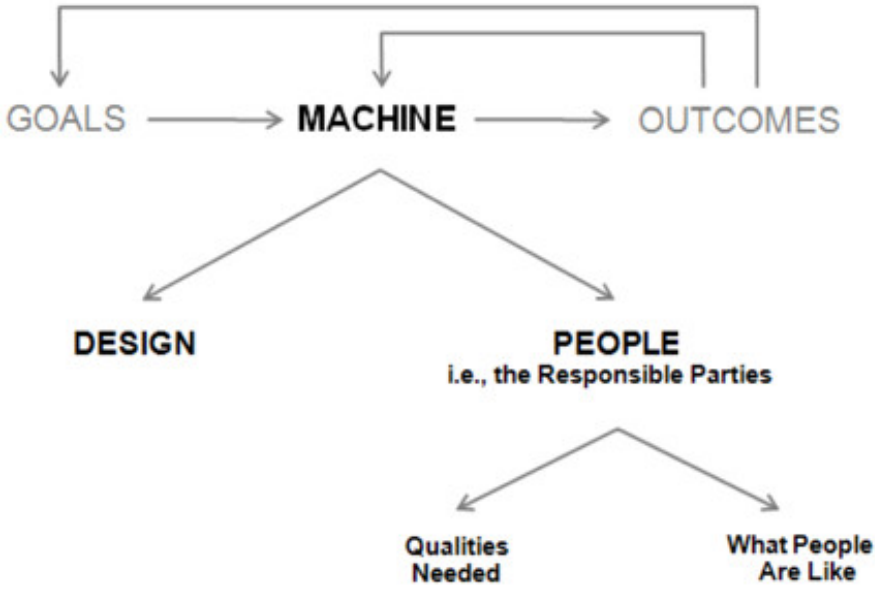
So…

… 65) Understand the differences between managing, micromanaging, and not managing. Micromanaging is telling the people who work for you exactly what tasks to do and/or doing their tasks for them. Not managing is having them do their jobs without your oversight and involvement. Managing means: 1) understanding how well your people and designs are operating to achieve your goals and 2) constantly improving them. To be successful, you need to manage.

65a) Managing the people who report to you should feel like "skiing together." Like a ski instructor, you need to have close contact with your people on the slopes so that you can assess their strengths and weaknesses as they are doing their jobs. There should be a good back and forth with trial and error. With time you will be able to decide what they can and can't effectively handle on their own.

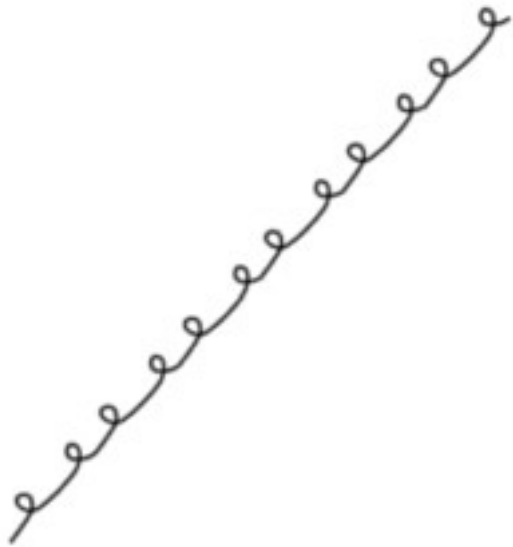
65b) An excellent skier is probably going to be more critical and a better critic of another skier than a novice skier. A student probably thinks his ski instructor is fabulous, while an Olympic skier looking at the same ski instructor would assess him to be at a much lower level.

… 66) Constantly compare your outcomes to your goals. Identify problems and diagnose whether the problems are with the way the organization is designed or with the way the people are handling their responsibilities. So remember how the following feedback loop to rapid improvement works.



And remember to do this constantly so you have a large sample size. You want to have a large sample size because 1) any one problem can either be a one-off imperfection or symptomatic of root causes that will show up as problems repeatedly; and 2) looking at a large sample size of problems will make clear which it is. Also, the larger your sample size, the clearer the root causes of your problems, and the more obvious your solutions, will be.

If you do this constantly in this way, your evolutionary process should look like this:



… 67) Look down on your machine and yourself within it from the higher level. Higher-level thinking doesn't mean the thinking done by higher-level beings. It means seeing things from a top-down perspective—like looking at a photo of Earth from outer space, which shows you the relationships between the continents, counties, and seas, and then going down to a photo of your country, then down to your neighborhood, then down to your family. If you just saw your family without the perspective of seeing that there are millions of other families, and there have been many millions of other families over thousands of years, and observing how your family compares and how families evolve, you would just be dealing with the items that are coming at you as they transpire without the perspective.

… 68) Connect the case at hand to your principles for handling cases of that type. Remember that every problem and task is just another "one of those"—i.e., another one of a certain type. Figuring out what type it is and reflecting on principles for handling that type of issue will help you do a better job. Whether or not you use the principles written here, you still must decide on a course of action and what guiding principles will be effective. Through this process you will improve your principles as well as handle your issues better.

… 69) Conduct the discussion at two levels when a problem occurs: 1) the "machine" level discussion of why the machine produced that outcome and 2) the "case at hand" discussion of what to do now about the problem. Don't make the mistake of just having the task-level discussion, because then you are micromanaging—i.e., you are

doing your managee's thinking for him and your managee will mistake your doing this as being OK, when that's not OK (because you will be micromanaging). When having the machine-level discussion, think clearly how things should have gone and explore why they didn't go that way. If you are in a rush to determine what to do and you have to tell the person who works for you what to do, point out that you are having to do this, make clear that you are having to do this and that is what you are doing, and make it a training experience —i.e., explain what you are doing and why.

… 70) Don't try to be followed; try to be understood and to understand others. Your goal is to understand what is true and improve together. If you want to be followed, either for an egotistical reason or because you believe it more expedient to operate that way, you will pay a heavy price in the long run. If you are the only one thinking, the results will suffer.

70a) Don't try to control people by giving them orders. They will likely resent the orders, and when you aren't looking, defy them. An authoritarian approach also means you aren't developing your employees, and over time they will become increasingly dependent on you, which damages all parties. Instead, the greatest power you have over intelligent people—and the greatest influence they will have on you—comes from constantly getting in synch about what is true and what is best so that they and you want the same things. People must desire to do the right things, and this desire must come from them. You can, however, show them the connection between fulfilling their responsibilities and their own well-being. Reaching agreement will come only from radically open discussions in which you are fair, reasonable, and open-minded.

70b) Communicate the logic and welcome feedback. When making rules or changes, explain the principles behind the decision. We want reasonable thinkers to operate sensibly. We achieve this through principles that are sound and well understood, applied and tested through open discussion. It is each person's job to 1) evaluate whether he agrees with a decision, and if not, explain why; and 2) hold each other accountable for operating consistently within the organization's principles. We want people who understand the principles that allow our community to succeed and possess strong ethics that motivate them to work by our rules, rather than to sneak around them. We want people who know that if the community works well, it will be good for them. We don't want people who need to be ordered and threatened. We don't want people who just follow orders.

... 71) Clearly assign responsibilities. Eliminate any confusion about expectations and ensure that people view the failure to achieve their goals and do their tasks as personal failures.[64] The most important person is the one who is given the overall responsibility for accomplishing the mission and has both the vision to see what should be done and the discipline to make sure it's accomplished by the people who do the tasks.

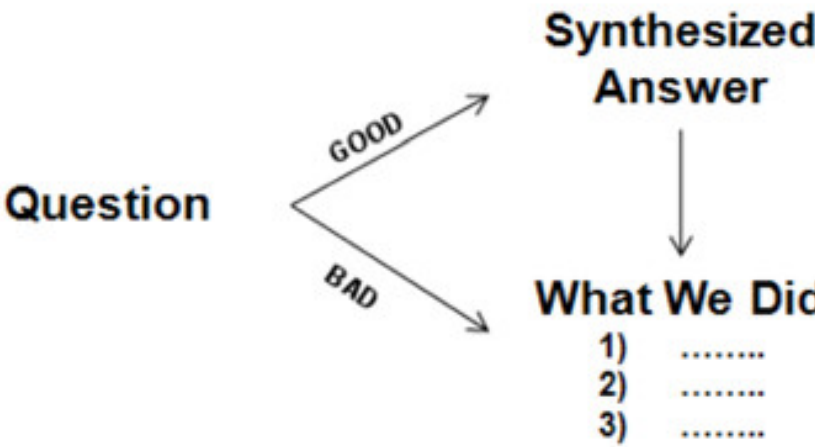
... 72) Hold people accountable and appreciate them holding you accountable. It's better for them, for you, and for the community. Slacker standards don't do anyone any good. People can resent being held accountable, however, and you don't want to have to tell them what to do all the time. Instead, reason with them, so that they understand the value and importance of being held accountable. Hold them accountable on a daily basis. Constant examination of problems builds a sample size that helps point the way to a resolution and is a good way to detect problems early on before they become critical. Avoiding these daily conflicts produces huge costs in the end.

72a) Distinguish between failures where someone broke their "contract" from ones where there was no contract to begin with. If you didn't make the expectation clear, you generally can't hold people accountable for it being fulfilled (with the exception of common sense —which isn't all that common). If you find that a responsibility fell through the cracks because there was no contract, think about whether you need to edit the design of your machine.

... 73) Avoid the "sucked down" phenomenon. This occurs when a manager is pulled down to do the tasks of a subordinate without acknowledging the problem. The sucked down phenomenon bears some resemblance to job slip, since it involves the manager's responsibilities slipping into areas that should be left to others. Both situations represent the reality of a job diverging from the ideal of that job. However, the sucked down phenomenon is typically the manager's response to subordinates' inabilities to do certain tasks or the manager's failure to properly redesign how the responsibilities should be handled in light of changed circumstances. You can tell this problem exists when the manager focuses more on getting tasks done than on operating his machine.

73a) Watch out for people who confuse goals and tasks, because you can't trust people with responsibilities if they don't understand the goals. One way to test this: if you ask a high-level question like, "How is goal XYZ going?" a good answer will provide a synthesis upfront (of how XYZ is in fact going overall), and then support that assessment

with the tasks done to achieve the goal. People who see the tasks and lose sight of the goals will just explain the tasks that were done and not make the connection to how those tasks relate to the machine that produces outcomes and achieves goals.



… 74) Think like an owner, and expect the people you work with to do the same. You must act in the interest of our community and recognize that your well-being is directly connected to the well- being of Bridgewater. For example, spend money like it's your own.

… 75) Force yourself and the people who work for you to do difficult things. It's usually easy to make things go well if you're willing to do difficult things. We must act as trainers in gyms act in order to keep each other fit. That's what's required to produce the excellence that benefits everyone. It is a law of nature that you must do difficult things to gain strength and power. As with working out, after a while you make the connection between doing difficult things and the benefits you get from doing them, and you come to look forward to doing these difficult things.

75a) Hold yourself and others accountable. It is unacceptable for you to say you won't fight for quality and truth because it makes you or other people uncomfortable. Character is the ability to get yourself to do the difficult but right things. Get over the discomfort, and force yourself to hold people accountable. The choice is between doing that properly or letting our community down by behaving in a way that isn't good for you or the people you are "probing" and coaching.

… 76) Don't worry if your people like you; worry about whether you are helping your people and Bridgewater to be great. One of the most

essential and difficult things you have to do is make sure the people who work for you do their jobs excellently. That requires constantly challenging them and doing things they don't like you to do, such as probing them. Even your best people, whom you regularly praise and reward, must be challenged and probed. You shouldn't be a manager if you have problems confronting people or if you put being liked above ensuring your people succeed.

... 77) Know what you want and stick to it if you believe it's right, even if others want to take you in another direction.

... 78) Communicate the plan clearly. People should know the plans and designs within their departments. When you decide to divert from an agreed-upon path, be sure to communicate your thoughts to the relevant parties and get their views so that you are all clear about taking the new path.

78a) Have agreed-upon goals and tasks that everyone knows (from the people in the departments to the people outside the departments who oversee them). This is important to ensure clarity on what the goals are, what the plan is, and who is responsible to do what in order to achieve the goals. It allows people to buy into the plan or to express their lack of confidence and suggest changes. It also makes clear who is keeping up his end of the bargain and who is falling short. These stated goals, tasks, and assigned responsibilities should be shown at department meetings at least once a quarter, perhaps as often as once a month.

78b) Watch out for the unfocused and unproductive "we should ... (do something)." Remember that to really accomplish things we need believable responsible parties who should determine, in an open-minded way, what should be done; so it is important to identify who these people are by their names rather than with a vague "we," and to recognize that it is their responsibility to determine what should be done. So it is silly for a group of people who are not responsible to say things like "we should..." to each other. On the other hand, it can be desirable to speak to the responsible party about what should be done.

... 79) Constantly get in synch with your people. Being out of synch leads to confused and inefficient decision-making. It can also lead you in conflicting directions either because 1) you are not clear with each other, which often generates wildly differing assumptions, or 2) you have unresolved differences in your views of how things should proceed and why. Getting in synch by discussing who will do what and why is essential for mutual progress. It doesn't necessarily entail

reaching a consensus. Often there will be irreconcilable differences about what should be done, but a decision still needs to be made, which is fine. The process of getting in synch will make it clear what is to be done and why, even if it cannot eliminate difference. One of the most difficult and most important things you must do, and have others do, is bring forth disagreement and work through it together to achieve a resolution. Recognize that this process takes time. It can happen any way people prefer: discussion, e-mail, etc. You must have a workable process for making decisions even when disagreements remain. I discuss such a process in the earlier section on getting in synch.

... 80) Get a "threshold level of understanding"—i.e., a rich enough understanding of the people, processes and problems around you to make well-informed decisions.

... 81) Avoid staying too distant. You need to know your people extremely well, provide and receive regular feedback, and have quality discussions. Your job design needs to build in the time to do these things.

81a) Tool: Use daily updates as a tool for staying on top of what your people are doing and thinking. Daily updates are brief descriptions of what the person did that day, what they are planning to do the next day, their problems, their questions, and their observations. They typically take about five minutes to write and do wonders for staying in touch.

... 82) Learn confidence in your people—don't presume it. It takes time to learn about people and what confidences can be placed in them. Sometimes new people are offended we don't yet have confidence in how they are handling their responsibilities. They think it's a criticism of their abilities when in fact it's a realistic recognition that we simply haven't had enough time or direct experience with them to form a point of view. No manager (including myself) should delegate responsibilities to people we don't yet know well enough to have confidence in. And new people shouldn't be offended if we haven't yet formed that confidence.

... 83) Vary your involvement based on your confidence. Management largely consists of scanning and probing everything for which you are responsible to identify suspicious signs. Based on what you see, you should vary your degree of digging, doing more of it for people and areas that look more suspicious, and less of it where probing instills you with confidence. With the right tools in place and

performing well, your scanning will include both reviewing the output of these tools (e.g., "issues log," "metrics," "daily updates," and "checklists") and spot-checking.

... 84) Avoid the "theoretical should." The theoretical should occurs when a manager theorizes that people should be able to do something when they can't or without actually knowing whether they can do it.

... 85) Care about the people who work for you. If you are not working with people you care about and respect, this whole thing ain't worth it. If you don't believe that, you probably shouldn't work at Bridgewater. While it's desirable to convey these feelings, having them is more important. It is good to share your lives together, but not required. Be there for weddings, births, and funerals. This is something that I try to do but fail to do enough because of the numbers, so I convey that I will be there for anyone who really needs me. Personal contact at the time of personal difficulty is a must.

... 86) Logic, reason, and common sense must trump everything else in decision- making.

... 87) While logic drives our decisions, feelings are very relevant. A feeling is a reality—and a good reality—and it's up to management to deal with all realities sensibly. Good emotions are important. In fact, they are probably most important since they are the reasons behind the good things we do, e.g., satisfaction with a job wonderfully done and love of others. Emotions are bad only if they cloud judgment and take us away from what we want.

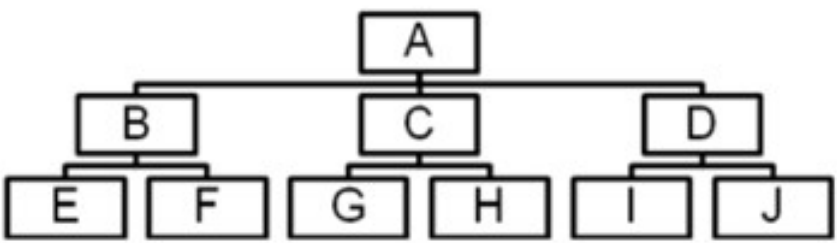
... 88) Escalate when you can't adequately handle your responsibilities, and make sure that the people who work for you do the same. Escalating means saying that you don't believe that you can successfully handle a situation and that you are passing the "responsible party" (RP) job to someone else. The person you are escalating to—the person to whom you report—can then decide whether to coach you through it, take control, have someone else handle it, or do something else. However, the boss should avoid being drawn into doing the job of the person who is failing without exploring why the job has not been done successfully without help. It's very important to get an accurate assessment of what each person can and can't do and why. If the boss just does the job for the person, even if it produces good results, we will lack the right attribution of success and failure. Remember that an important goal is to learn about what a person is like from testing, and that we want to get that information without crashing the car. So, the RP must either say that

he can handle his job or that he cannot. And it is the responsibility of the boss to make the assessment of whether to remove the RP from the driver's seat because he might crash. We learn from mistakes by seeing our failures, feeling the pain of them, and reflecting and gaining insight. If the boss and the RP don't recognize the RP's failures to fix things, and the RP lacks the ability to do the job, trouble will result. Remember that life is the best teacher—"the proof is in the pudding." So going through this process is essential to real learning.

88a) Make sure your people know to be proactive. Demand that they speak up when they won't meet agreed-upon deliverables or deadlines. This communication is essential to getting in synch on both a project level and on a personal level.

88b) Tool: An escalation button. Because there is confusion at times about whether responsible parties are conveying to their managers their problems or whether they are escalating, use an escalation button. This is a tool that makes clear to the manager that the managee is escalating.

... 89) Involve the person who is the point of the pyramid when encountering material cross-departmental or cross sub-departmental issues. Imagine an organizational chart as a pyramid that consists of numerous pyramids, so:



When issues involve parties that are not in the same part of the pyramid, it is generally desirable to involve the person who is at the point of the pyramid. The individual at the point has the perspective and knowledge to weigh the trade-offs properly and make an informed decision. Not involving the person at the point of the pyramid will likely cause problems. In the diagram above, if persons G and H are having an issue, who is the point of the pyramid? If persons F and I are having an issue, who is the point of the pyramid? [65]

90) Probe Deep and Hard to Learn What to Expect from Your "Machine"

So…

… 91) Know what your people are like, and make sure they do their jobs excellently. This requires constantly challenging them and probing them. That's true even if your people are doing their jobs well, even though those people can be given more leeway.

… 92) Constantly probe the people who report to you, and encourage them to probe you. Managers are much less able to discover the right things to do than most people assume. I know that's true for me. The people who work for you should constantly challenge you, in order for you to become as good as you can be. Also, inviting criticism brings to the surface any subterranean discontent and makes the people working for you responsible for helping to find solutions. It's much easier for people to remain spectators offering unchallenged comments from the stands than to become players on the field. Forcing people onto the field strengthens the whole team. Communication is a two-way responsibility.

92a) Remind the people you are probing that problems and mistakes are fuel for improvement. They ought to understand that probing is good for them and everyone else. The main reason Bridgewater has improved at a much faster rate than most other companies over the past 30 years is that we seek out problems and find systematic ways of eliminating them. This approach has given us an unlimited supply of practical ways to improve.

… 93) Probe to the level below the people who work for you. You can't understand how the person who reports to you manages others unless you know their direct reports and can observe how they behave with them. Also encourage the people who work two levels below you to bring their disagreements with their bosses to you.

… 94) Remember that few people see themselves objectively, so it's important to welcome probing and to probe others.

… 95) Probe so that you have a good enough understanding of whether problems are likely to occur before they actually do. If problems take you by surprise, it is probably because you are either too far removed from your people and processes or you haven't adequately thought through how the people and processes might lead to various outcomes.

95a) When a crisis appears to be brewing, contact should be so close that it's extremely unlikely that there will be any surprises.

95b) Investigate and let people know you are going to investigate so there are no surprises and they don't take it personally.

… 96) Don't "pick your battles." Fight them all. If you see something wrong, even something small, deal with it. Because 1) small badnesses can be symptomatic of serious underlying problems; 2) resolving small differences of perception may prevent more serious divergences of views; and 3) in trying to help to train people, constant reinforcement of desired behavior is helpful. The more battles you fight, the more opportunities you will have to get to know each other and the faster the evolutionary process will occur.

… 97) Don't let people off the hook. Ask the important, difficult questions, and independently audit.

… 98) Don't assume that people's answers are correct. They could be erroneous theories or "spin," so you need to occasionally double check them, especially when they sound questionable. Some managers are reluctant to do this, feeling as though it is the equivalent of saying they don't trust them. These managers need to understand and convey that trust in the accuracy of people's statements is gained or lost through this process. People will learn to be much more accurate in what they say to you if they understand this—and increasingly, you will learn who and what you can rely on.

… 99) Make the probing transparent rather than private. That will help to assure the quality of the probing (because others can make their own assessments), and it will reinforce the culture of transparency and freedom to find truth.

100) EVALUATE PEOPLE ACCURATELY, NOT "KINDLY"
So…

… 101) Make accurate assessments. Since truth is the foundation of excellence and people are your most important resource, make the most precise personnel evaluations possible. This accuracy takes time and considerable back-and-forth. Your assessment of how responsible parties are performing should be based not on whether they're doing it your way but on whether they're doing it in a good way. Speak frankly, listen with an open mind, consider the views of other believable and honest people, and try to get in synch about what's going on with the person and why. Remember not to be overconfident in your assessments as it's possible you are wrong.

101a) Use evaluation tools such as performance surveys, metrics, and formal reviews to document all aspects of a person's performance. These will help clarify assessments and communication surrounding them.

101b) Maintain "baseball cards" and/or "believability matrixes" for your people. Imagine if you had baseball cards that showed all the performance stats for your people: batting averages, home runs, errors, ERAs, win/loss records. You could see what they did well and poorly and call on the right people to play the right positions in a very transparent way. These would also simplify discussions about compensation, incentives, moving players up to first string, or cutting them from the team. You can and should keep such records of your people. Create your baseball cards to achieve your goals of conveying what the person is like. I use ratings, forced rankings, metrics, results, and credentials. Baseball cards can be passed to potential new managers as they consider candidates for assignments.

… 102) Evaluate employees with the same rigor as you evaluate job candidates. Ask yourself: "Would I hire this person knowing what I now know about them?" I find it odd and silly that interviewers often freely and confidently criticize job candidates despite not knowing them well, yet they won't criticize employees for similar weaknesses even though they have more evidence. That is because some people view criticism as harmful and feel less protective of an outsider than they do of a fellow employee. If you believe accuracy is best for everyone, then you should see why this is a mistake and why frank evaluations must be ongoing.

… 103) Know what makes your people tick, because people are your

most important resource. Develop a full profile of each person's values, abilities, and skills. These qualities are the real drivers of behavior, and knowing them in detail will tell you which jobs a person can and cannot do well, which ones they should avoid, and how the person should be trained. I have often seen people struggling in a job and their manager trying for months to find the right response because the manager overlooked the person's "package." These profiles should change as the people change.

... 104) Recognize that while most people prefer compliments over criticisms, there is nothing more valuable than accurate criticisms. While it is important to be clear about what people are doing well, there should not be a reluctance to profile people in a way that describes their weaknesses. It is vital that you be accurate.

... 105) Make this discovery process open, evolutionary, and iterative. Articulate your theory of a person's values, abilities, and skills upfront and share this with him; listen to his and others' response to your description; organize a plan for training and testing; and reassess your theory based on the performance you observe. Do this on an ongoing basis. After several months of discussions and real-world tests, you and he should have a pretty good idea of what he is like. Over time this exercise will crystallize suitable roles and appropriate training, or it will reveal that it's time for the person to leave Bridgewater.

... 106) Provide constant, clear, and honest feedback, and encourage discussion of this feedback. Don't hesitate to be both critical and complimentary—and be sure to be open-minded. Training and assessing will be better if you frequently explain your observations. Providing this feedback constantly is the most effective way to train. [66]

106a) Put your compliments and criticisms into perspective. I find that many people tend to blow evaluations out of proportion, so it helps to clarify that the weakness or mistake under discussion is not indicative of your total evaluation. Example: One day I told one of the new research people what a good job I thought he was doing and how strong his thinking was. It was a very positive initial evaluation. A few days later I heard him chatting away for hours about stuff that wasn't related to work, so I spoke to him about the cost to his and our development if he regularly wasted time. Afterward I learned he took away from that encounter the idea that I thought he was doing a horrible job and that he was on the brink of being fired. But my comment about his need for focus had nothing to do with my overall

evaluation of him. If I had explained myself when we sat down that second time, he could have better put my comments in perspective.

106b) Remember that convincing people of their strengths is generally much easier than convincing them of their weaknesses. People don't like to face their weaknesses. At Bridgewater, because we always seek excellence, more time is spent discussing weaknesses. Similarly, problems require more time than things that are going well. Problems must be figured out and worked on, while things that are running smoothly require less attention. So we spend a lot of time focusing on people's weaknesses and problems. This is great because we focus on improving, not celebrating how great we are, which is in fact how we get to be great. For people who don't understand this fact, the environment can be difficult. It's therefore important to 1) clarify and draw attention to people's strengths and what's being done well; and 2) constantly remind them of the healthy motive behind this process of exploring weaknesses. Aim for complete accuracy in your assessments. Don't feel you have to find an equal number of "good and bad" qualities in a person. Just describe the person or the circumstances as accurately as possible, celebrating what is good and noting what is bad.

106c) Encourage objective reflection—lots and lots of it.

106d) Employee reviews: While feedback should be constant, reviews are periodic. The purpose of a review is to review the employee's performance and to state what the person is like as it pertains to their doing their job.

A job review should have little surprises in it—this is because throughout the year, if you can't make sense of how the person is doing their job or if you think it's being done badly, you should probe them to seek understanding of root causes of their performance. Because it is very difficult for people to identify their own weaknesses, they need the appropriate probing (not nitpicking) of specific cases by others to get at the truth of what they are like and how they are fitting into their jobs.

From examining these specific cases and getting in synch about them, agreed-upon patterns will emerge. As successes and failures will occur in everyone (every batter strikes out a lot), in reviewing someone the goal is see the patterns and to understand the whole picture rather than to assume that one or a few failures or successes is representative of the person. You have to understand the person's modus operandi and that to be successful, they can't be successful in all ways—e.g., to

be meticulous they might not be able to be fast (and vice versa). Steve Jobs has been criticized as being autocratic and impersonal, but his modus operandi might require him being that way, so the real choice in assessing his fit for his job is to have him the way he is or not at all: that assessment must be made in the review, not just a theoretical assessment that he should do what he is doing and be less autocratic.

In some cases it won't take long to see what a person is like—e.g., it doesn't take long to hear if a person can sing. In other cases it takes a significant number of samples and time to reflect on them. Over time and with a large sample size you should be able to see what people are like, and their track records (i.e., the level and the steepness up or down in the trajectories that they are responsible for, rather than the wiggles in these) paint a very clear picture of what you can expect from them.

If there are performance problems, it is either because of design problems (e.g., the person has too many responsibilities) or fit/abilities problems. If the problems are due to the person's inabilities, these inabilities are either because of the person's innate weaknesses in doing that job (e.g., with a height of 5-foot-2, the person probably shouldn't be a center on the basketball team) or because of inadequate training to do the job. A good review, and getting in synch throughout the year, should get at these things.

The goal of a review is to be clear about what the person can and can't be trusted to do based on what the person is like. From there, "what to do about it" (i.e., how these qualities fit into the job requirement) can be determined.

... 107) Understand that you and the people you manage will go through a process of personal evolution. Personal evolution occurs first by identifying your strengths and weaknesses, and then by changing your weaknesses (e.g., through training) or changing jobs to play to strengths and preferences. This process, while generally difficult for both managers and their subordinates, has made people happier and Bridgewater more successful. Remember that most people are happiest when they are improving and doing things that help them advance most rapidly, so learning your people's weaknesses is just as valuable for them and for you as learning their strengths.

... 108) Recognize that your evolution at Bridgewater should be relatively rapid and a natural consequence of discovering your strengths and weaknesses; as a result, your career path is not planned at the outset. Your career path isn't planned because the

evolutionary process is about discovering your likes and dislikes as well as your strengths and weaknesses. The best career path for anyone is based on this information. In other words, each person's career direction will evolve differently based on what we all learn. This process occurs by putting people into jobs that they are likely to succeed at, but that they have to stretch themselves to do well. They should be given enough freedom to learn and think for themselves while being coached so they can be taught and prevented from making unacceptable mistakes. During this process they should receive constant feedback. They should reflect on whether their problems can be resolved by additional learning or stem from innate qualities that can't be changed. Typically it takes six to 12 months to get to know a person in a by-and-large sort of way and about 18 months to change behavior (depending on the job and the person). During this time there should be periodic mini-reviews and several major ones. Following each of these assessments, new assignments should be made to continue to train and test them. They should be tailored to what was learned about the person's likes and dislikes and strengths and weaknesses. This is an iterative process in which these cumulative experiences of training, testing, and adjusting direct the person to ever more suitable roles and responsibilities. It benefits the individual by providing better self-understanding and greater familiarity with various jobs at Bridgewater. This is typically both a challenging and rewarding process. When it results in a parting of ways, it's usually because people find they cannot be excellent and happy in any job at Bridgewater or they refuse to go through this process.

… 109) Remember that the only purpose of looking at what people did is to learn what they are like. Knowing what they are like will tell you how you can expect them to handle their responsibilities in the future. Intent matters, and the same actions can stem from different causes.

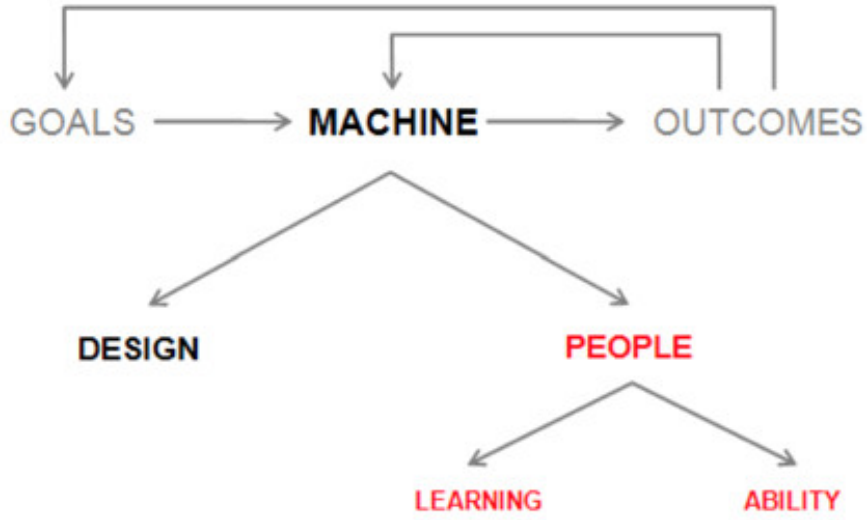
109a) Look at patterns of behaviors and don't read too much into any one event. Since there is no such thing as perfection, even excellent managers, companies, and decisions will have problems. It's easy, though often not worth much, to identify and dwell on tiny mistakes. In fact, this can be a problem if you get bogged down pinpointing and analyzing an infinite number of imperfections. At the same time, minor mistakes can sometimes be manifestations of serious root causes that could cause major mistakes down the road, so they can be quite valuable to diagnose. When assessing mistakes it is important to 1) ask whether these mistakes are manifestations of something serious or unimportant and 2) reflect on the frequency of

them. An excellent decision-maker and a bad decision- maker will both make mistakes. The difference is what causes them to make mistakes and the frequency of their mistakes.

There is also a difference between "I believe you made a bad decision" and "I believe you are a bad decision-maker," which can be ascertained only by seeing the pattern. Any one event has many different possible explanations, whereas a pattern of behavior can tell you a lot about root causes. There are many qualities that make up a person. To understand each requires 1) a reliable sample size and 2) getting in synch (i.e., asking the person why and giving feedback). Some qualities don't require a large sample size—e.g., it takes only one data point to know if a person can sing—and others take multiple observations (five to 10). The number of observations needed to detect a pattern largely depends on how well you get in synch after each observation. A quality discussion of how and why a person behaved a certain way should help you quickly understand the larger picture.

109b) Don't believe that being good or bad at some things means that the person is good or bad at everything. Realize that all people have strengths and weaknesses.

... 110) If someone is doing their job poorly, consider whether this is due to inadequate learning (i.e., training/experience) or inadequate ability. A weakness due to a lack of experience or training or due to inadequate time can be fixed. A lack of inherent ability cannot. Failing to distinguish between these causes is a common mistake among managers, because managers are often reluctant to appear unkind or judgmental by saying someone lacks ability. They also know people assessed this way tend to push back hard against accepting a permanent weakness. Managers need to get beyond this reluctance. In our diagram of thinking through the machine that will produce outcomes, think about...



… 111) Remember that when it comes to assessing people, the two biggest mistakes are being overconfident in your assessment and failing to get in synch on that assessment. Don't make those mistakes.

111a) Get in synch in a non-hierarchical way regarding assessments. The greatest single discrepancy between a manager and a managee is how well each performs his job. In most organizations, evaluations run in only one direction, with the manager assessing the managee. The managee typically disagrees with the assessment, especially if it is worse than the employee's self- assessment, because most people believe themselves to be better than they really are. Managees also have opinions of managers that in most companies they wouldn't dare bring up, so misunderstandings and resentments fester. This perverse behavior undermines the effectiveness of the environment and the relationships between people. It can be avoided by getting in synch in a high-quality way.

111b) Learn about your people and have them learn about you with very frank conversations about mistakes and their root causes. You need to be clear in conveying your assessments and be open-minded in listening to people's replies. This is so they can understand your thinking and you can open-mindedly consider their perspectives. So together you can work on setting their training and career paths. Recognizing and communicating people's weakness is one of the most difficult things managers have to do. Good managers recognize that

while it is difficult in the short term, it actually makes things easier in the long term, because the costs of having people in jobs where they can't excel are huge. Most managers at other companies dodge being as open with assessments as we insist on; more typically, managers elsewhere tend to be less frank in conveying their views, which is neither fair nor effective.

... 112) Help people through the pain that comes with exploring their weaknesses. Emotions tend to heat up during most disagreements, especially about someone's possible weaknesses. Speak in a calm, slow, and analytical manner to facilitate communication. If you are calm and open to others' views, they are less likely to shut down logical exchanges than if you behave emotionally. Put things in perspective by reminding them that their pain is the pain that comes with learning and personal evolution—they're going to be in a much better place by getting to truth. Consider asking them to go away and reflect when they are calm, and have a follow-up conversation in a few days.

... 113) Recognize that when you are really in synch with people about weaknesses, whether yours or theirs, they are probably true. Getting to this point is a great achievement. When you reach an agreement, it's a good sign you're there. This is one of the main reasons why the person being evaluated needs to be an equal participant in the process of finding truth. So when you do agree, write it down on the relevant baseball card. This information will be a critical building block for future success.

... 114) Remember that you don't need to get to the point of "beyond a shadow of a doubt" when judging people. Instead, work toward developing a mutually agreed "by-and-large" understanding of someone that has a high level of confidence behind it. When necessary, take the time to enrich this understanding. That said, you should not aim for perfect understanding. Perfect understanding isn't possible, and trying to get it will waste time and stall progress.

... 115) Understand that you should be able to learn the most about what a person is like and whether they are a "click" for the job in their first year. You should be able to roughly assess someone's abilities after six to 12 months of close contact and numerous tests and getting in synch about them. A more confident assessment so that you can make a more confident role assignment will probably take about 18 months. This timeline will of course depend on the job, the person, the amount of contact with that person, and how well you do it. As I explain in the section on design, the ratio of senior managers

to junior managers as well as the ratio of managers to the number of people who work two levels below them should be small enough to ensure quality communication and mutual understanding. Generally, that ratio should not be more than 1:10, preferably more like 1:5.

… 116) Continue assessing people throughout their time at Bridgewater. You will get to know them better, it will help you train and direct them, and you won't be stuck with an obsolete picture. Most importantly, assess what your people's core values and abilities are and make sure they complement Bridgewater's. Since core values and abilities are more permanent than skills, they are more important to ascertain, especially at Bridgewater. As mentioned, you should be able to roughly assess people's abilities after six to 12 months of close contact and confidently assess them after 18 months.

Don't rest with that evaluation, however. Always ask yourself if you would have hired them for that job knowing what you now know. If not, get them out of the job.

117) Train and Test People Through Experiences
So…

… 118) Understand that training is really guiding the process of personal evolution. It requires the trainee to be open-minded, to suspend ego in order to find out what he is doing well and poorly, and to decide what to do about it. It also requires the trainer to be open-minded (and to do the other things previously mentioned). It would be best if at least two believable trainers work with each trainee in order to triangulate views about what the trainee is like. As previously explained, the training should be through shared experiences like that of a ski instructor skiing with his student—i.e., it should be an apprentice relationship.

… 119) Know that experience creates internalization. A huge difference exists between memory- based "book" learning and hands-on, internalized learning. A medical student who has "learned" to perform an operation in his medical school class has not learned it in the same way as a doctor who has already conducted several operations. In the first case, the learning is stored in the conscious mind, and the medical student draws on his memory bank to remember what he has learned. In the second case, what the doctor has learned through hands-on experience is stored in the subconscious mind and pops up without his consciously recalling it from the memory bank. People who excel at book learning tend to call up from memory what they have learned in order to follow stored instructions. Others who are better at internalized learning use the thoughts that flow from their subconscious. The experienced skier doesn't recite instructions on how to ski and then execute them; rather, he does it well "without thinking," in the same way he breathes without thinking. Understanding these differences is essential.[67] Remember that experience creates internalization. Doing things repeatedly leads to internalization, which produces a quality of understanding that is generally vastly superior to intellectualized learning.

… 120) Provide constant feedback to put the learning in perspective. Most training comes from doing and getting in synch about performance. Feedback should include reviews of what is succeeding and what is not in proportion to the actual situation rather than in an attempt to balance compliments and criticisms. You are a manager, and you want your machine to function as intended. For it do so, employees must meet expectations, and only you can help them to understand where they are in relation to expectations. As strengths

and weaknesses become clearer, responsibilities can be more appropriately tailored to make the machine work better and to facilitate personal evolution. The more intensely this is done, the more rapid the evolutionary process will be. So you must constantly get in synch about employee performance.

... 121) Remember that everything is a case study. Think about what it is a case of and what principles apply.

... 122) Teach your people to fish rather than give them fish. It is a bad sign when you tell people what they should do because that behavior typically reflects micromanagement or inability on the part of the person being managed. Instead, you should be training and testing. So give people your thoughts on how they might approach their decisions or how and why you would operate in their shoes, but don't dictate to them. Almost all that you will be doing is constantly getting in synch about how they are doing things and exploring why.

... 123) Recognize that sometimes it is better to let people make mistakes so that they can learn from them rather than tell them the better decision. However, since the connections between cause and effect can be misunderstood, providing feedback for these people is essential to the learning process.

123a) When criticizing, try to make helpful suggestions. Your goal is to help your people understand and improve, so your suggestions are important. Offering suggestions also helps those being criticized to understand that your goal is to help them and Bridgewater, not to hurt them.

123b) Learn from success as well as from failure. Point out examples of jobs that are well done and the causes of success. This reinforces good behavior and creates role models for those who are learning.

... 124) Know what types of mistakes are acceptable and unacceptable, and don't allow the people who work for you to make the unacceptable ones. When considering what failures you are willing to allow in order to promote learning through trial-and-error, weigh the potential damage of a mistake against the benefit of incremental learning. In defining what latitude I'm willing to give people, I say, "I'm willing to let you scratch or dent the car, but I won't put you in a position where I think there's a significant risk you could total it."

... 125) Recognize that behavior modification typically takes about 18 months of constant reinforcement. The first step is

intellectualizing the best way of doing things. If you're out of shape you must understand that you are out of shape, you must want to get in shape, and you must understand the way to get in shape: "I want to be fit by eating well and exercising." Then the intellect will fight with desires and emotions. With determination, the intellect will overcome the impediments to doing what's necessary to achieve the goal, and the desired behavior will occur. After doing that consistently for 18 months, the new behavior will be internalized.

… 126) Train people; don't rehabilitate them. Training is part of the plan to develop people's skills and to help them evolve. Rehabilitation is the process of trying to create significant change in people's values and/or abilities. Since values and abilities are difficult to change, rehabilitation typically takes too long and is too improbable to do at Bridgewater. If attempted, it is generally best directed by professionals over extended periods of time. People with inappropriate values and inadequate abilities to meet their job requirements have devastating impacts on the organization. They should be properly sorted (see the principles section on sorting).

126a) A common mistake: training and testing a poor performer to see if he or she can acquire the required skills without simultaneously trying to assess their abilities. Skills are readily testable, so they should be easy to determine. Knowing them is less important than knowing people's abilities. That makes picking people with the right skills relatively easy. Abilities, especially right-brained abilities, are more difficult to assess. When thinking about why someone is a poor performer, openly consider whether it is a problem with their abilities. Values are the toughest and take the longest to assess.

… 127) After you decide "what's true" (i.e., after you figure out what your people are like), think carefully about "what to do about it." As mentioned before, it's important to separate thinking about "what's true" and thinking about "what to do about it." Figuring out what's true takes time—often several months filled with a large sample size. Figuring out what to do about it (i.e., designing) is much faster—typically hours or days—but it isn't instantaneous. Too often people either jump to decisions or don't make them.

128) Sort People into Other Jobs at Bridgewater, or Remove Them from Bridgewater

So…

… 129) When you find that someone is not a good "click" for a job, get them out of it ASAP. If you are expecting/wishing people to be much better in the near future than they have been in the past, you are making a serious mistake—instead, sort the people. People who repeatedly operated in a certain way probably will continue to operate that way because that behavior reflects what they're like. Since people generally change slowly (at best), you should expect slow improvement (at best), so instead of hoping for improvement, you need to sort the people or change the design to supplement them. Since changing the design to accommodate people's weaknesses is generally a bad idea, it is generally better to sort the people.

Sometimes good people "lose their boxes" because they can't evolve into responsible parties soon enough. Either there is a problem with their qualities or it will take too long to train them well. Some of these people might be good at another position within Bridgewater. Remember that identifying failure and learning from it are part of the evolutionary process. Make sure you record the reasons on the relevant "baseball card" and think about what a good next step would be for that individual.

… 130) Know that it is much worse to keep someone in a job who is not suited for it than it is to fire someone. Don't collect people. Firing people is not a big deal—certainly nowhere near as big a deal as keeping badly performing people, because keeping a person in a job they are not suited for is terrible both for the person (because it prevents personal evolution) and our community (because we all bear the consequences and it erodes meritocracy). Consider the enormous costs of not firing someone unsuited for a job: the costs of bad performance over a long time; the negative effect on the environment; the time and effort wasted trying to train the person; and the greater pain of separation involved with someone who's been here awhile (say, five years or more) compared with someone let go after just a year.

… 131) When people are "without a box," consider whether there is an open box at Bridgewater that would be a better fit. If not, fire them. Remember that we hire people not to fill their first job at Bridgewater nor primarily for their skills. We are trying to select

people with whom we'd like to share our lives. We expect everyone to evolve here. Because managers have a better idea of people's strengths and weaknesses and their fit within our culture than what emerges from the interview process, you have invaluable information for assessing them for another role at Bridgewater.

... 132) Do not lower the bar. If a person can't operate consistently with our requirements of excellence and radical truth and can't get to the bar in an acceptable time frame, they have to

133) Know How to Perceive Problems Effectively
So...

... 134) Keep in mind the 5-Step Process explained in Part 2.

... 135) Recognize that perceiving problems is the first essential step toward great management. As in nature, if you can't see what's happening around you, you will deteriorate and eventually die off. People who can 1) perceive problems; 2) decide what to do about them; and 3) get these things done can be great managers.

... 136) Understand that problems are the fuel for improvement. Problems are like wood thrown into a locomotive engine, because burning them up—i.e., inventing and implementing solutions—propels us forward. Problems are typically manifestations of root causes, so they provide clues for getting better. Most of the movement toward excellence comes from eliminating problems by getting at their root causes and making the changes that pay off repeatedly in the future. So finding problems should get you excited because you have found an opportunity to get better.

... 137) You need to be able to perceive if things are above the bar (i.e., good enough) or below the bar (i.e., not good enough), and you need to make sure your people can as well. That requires the ability to synthesize.

... 138) Don't tolerate badness. Too often I observe people who observe badness and tolerate it. Sometimes it is because they don't have the courage to make the needed changes, and sometimes it is because they don't know how to fix it. Both are very bad. If they're stuck, they need to seek the advice of believable people to make the needed changes, and if that doesn't work, they need to escalate.

... 139) "Taste the soup." A good restaurateur constantly tastes the food that is coming out of his kitchen and judges it against his vision of what is excellent. A good manager needs to do the same.

... 140) Have as many eyes looking for problems as possible. Encourage people to bring problems to you and look into them carefully. If everyone in your area feels responsible for the well-being of that area and feels comfortable speaking up about problems, your risks of overlooking them will be much less than if you are the only one doing this. This will help you perceive problems, gain the best

ideas, and keep you and your people in synch.

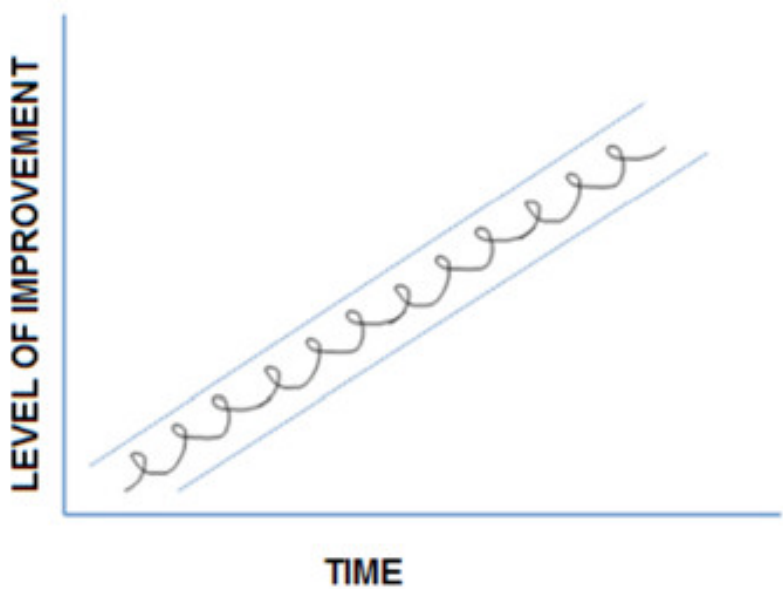
140a) "Pop the cork." It's your responsibility to make sure that communications from your people are flowing freely.

140b) Hold people accountable for raising their complaints. Ask yourself: 1) does someone think there's something wrong; 2) did this lead to a proper discussion; and 3) if they felt raising the issue didn't lead to the proper response, did they escalate it? That's how it should be.

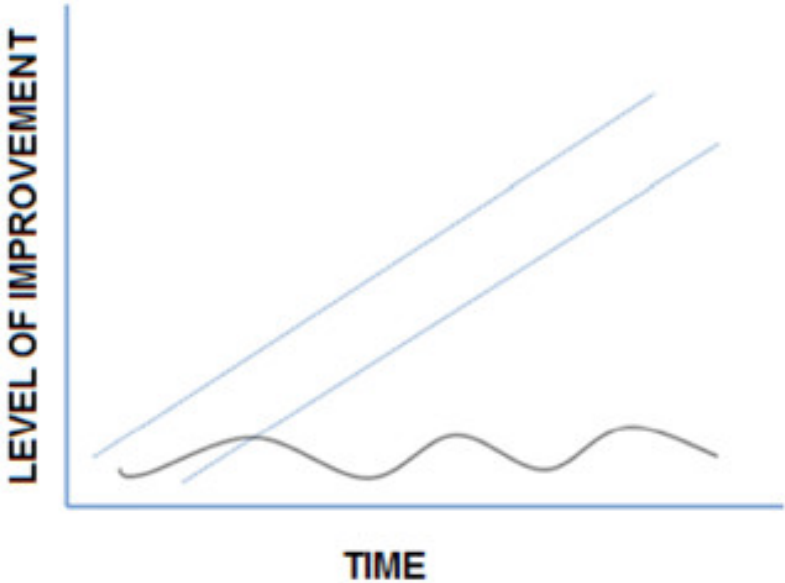
140c) The leader must encourage disagreement and be either impartial or open-minded.

140d) The people closest to certain jobs probably know them best, or at least have perspectives you need to understand, so those people are essential for creating improvement.

... 141) To perceive problems, compare how the movie is unfolding relative to your script—i.e., compare the actual operating of the machine and the outcomes it is producing to your visualization of how it should operate and the outcomes you expected. As long as you have the visualization of your expectations in mind to compare with the actual results, you will note the deviations so you can deal with them. For example, if you expect improvement to be within a specific range...



... and it ends up looking like this...



... you will know you need to get at the root cause to deal with it. If you don't, the trajectory will probably continue.

... 142) Don't use the anonymous "we" and "they," because that masks personal responsibility—use specific names. For example, don't say "we" or "they" handled it badly. Also avoid: "We should..." or "We are..."Who is "we"? Exactly who should, who made a mistake, or who did a great job? Use specific names. Don't undermine personal accountability with vagueness. When naming names, it's also good to remind people of related principles like "mistakes are good if they result in learning."

... 143) Be very specific about problems; don't start with generalizations. For example, don't say, "Client advisors aren't communicating well with the analysts." Be specific: name which client advisors aren't doing this well and in which ways. Start with the specifics and then observe patterns.

... 144) Tool: Use the following tools to catch problems: issues logs, metrics, surveys, checklists, outside consultants, and internal auditors.

1) Issues log: A problem or "issue" that should be logged is easy to identify: anything that went wrong. The issues log acts like a

water filter that catches garbage. By examining the garbage and determining where it came from, you can determine how to eliminate it at the source. You diagnose root causes for the issues log the same way as for a drilldown (explained below) in that the log must include a frank assessment of individual contributions to the problems alongside their strengths and weaknesses. As you come up with the changes that will reduce or eliminate the garbage, the water will become cleaner. In addition to using issues logs to catch problems, you can use them to measure the numbers and types of problems, and they can therefore be effective metrics of performance. A common challenge to getting people to use issues logs is that they are sometimes viewed as vehicles for blaming people. You have to encourage use by making clear how necessary they are, rewarding active usage, and punishing non-use. If, for example, something goes wrong and it's not in the issues log, the relevant people should be in big trouble. But if something goes wrong and it's there (and, ideally, properly diagnosed), the relevant people will probably be rewarded or praised. But there must be personal accountability.

2) Metrics: Detailed metrics measure individual, group, and system performance. Make sure these metrics aren't being "gamed" so that they cease to convey a real picture. If your metrics are good enough, you can gain such a complete and accurate view of what your people are doing and how well they are doing it that you can nearly manage via the metrics. However, don't even think of taking the use of metrics that far! Instead, use the metrics to ask questions and explore. Remember that any single metric can mislead. You need enough evidence to establish patterns. Metrics and 360 reviews reveal patterns that make it easier to achieve agreement on employees' strengths and weaknesses. Of course, the people providing the information for metrics must deliver accurate assessments. There are various ways to facilitate this accuracy. A reluctance to be critical can be detected by looking at the average grade each grader gives; those giving much higher average grades might be the easy graders. Similarly helpful are "forced rankings," in which people must rank coworker performance from best to worst. Forced rankings are essentially the same thing as "grading on a curve." Metrics that allow for independent grading across departments and/or groups are especially valuable.

3) Surveys (of workers and of customers).

… 145) The most common reason problems aren't perceived is what I

call the "frog in the boiling water" problem. Supposedly, if you throw a frog in a pot of boiling water it will immediately jump out. But if you put a frog in room-temperature water and gradually bring the water to a boil, the frog will stay in place and boil to death. There is a strong tendency to get used to and accept very bad things that would be shocking if seen with fresh eyes.

... 146) In some cases, people accept unacceptable problems because they are perceived as being too difficult to fix. Yet fixing unacceptable problems is actually a lot easier than not fixing them, because not fixing them will make you miserable. They will lead to chronic unacceptable results, stress, more work, and possibly get you fired. So remember one of the first principles of management: you either have to fix problems or escalate them (if need be, over and over again) if you can't fix them. There is no other, or easier, alternative.

146a) Problems that have good, planned solutions are completely different from those that don't. The spectrum of badness versus goodness with problems looks like this:

a) They're unidentified (worst);

b) Identified but without a planned solution (better);

c) Identified with a good, planned solution (good); and

d) Solved (best).

However, the worst situation for morale is the second case: identified but without a planned solution. So it's really important to identify which of these categories the problem belongs to.

147) Diagnose to Understand What the Problems Are Symptomatic Of So…

… 148) Recognize that all problems are just manifestations of their root causes, so diagnose to understand what the problems are symptomatic of. Don't deal with your problems as one-offs. They are outcomes produced by your machine, which consists of design and people. If the design is excellent and the people are excellent, the outcomes will be excellent (though not perfect). So when you have problems, your diagnosis should look at the design and the people to determine what failed you and why.

… 149) Understand that diagnosis is foundational both to progress and quality relationships. An honest and collaborative exploration of problems with the people around you will give you a better understanding of why these problems occur so that they can be fixed. You will also get to know each other better, be yourself, and see whether the people around you are reasonable and/or enforce their reasonableness. Further, you will help your people grow and vice versa. So, this process is not only what good management is; it is also the basis for personal and organizational evolution and the way to establish deep and meaningful relationships. Because it starts and ends with how you approach mistakes, I hope that I have conveyed why I believe this attitude about and approach to dealing with mistakes is so important.

… 150) Ask the following questions when diagnosing. These questions are intended to look at the problem (i.e., the outcome that was inconsistent with the goal) as a manifestation of your "machine." It does this first by examining how the responsible parties imagined that the machine would have worked, then examining how it did work, and then examining the inconsistencies. If you get adept at the process, it should take 10 to 20 minutes. As previously mentioned, it

should be done constantly so that you have a large sample size and no one case is a big deal.

1) *Ask the person who experienced the problem: What suboptimality did you experience?*

2) *Ask the manager of the area: Is there a clear responsible party for the machine as a whole who can describe the machine to you and answer your questions about how the machine performed compared with expectations? Who owns this responsibility?*

• *Do not mask personal responsibility—use specific names.*

3) *Ask the responsible party: What is the "mental map" of how it was supposed to work?*

• *A "mental map" is essentially the visualization of what should have happened.*

• *To be practical, "mental maps" (i.e., the designs that you would have expected would have worked well) should account for the fact that people are imperfect. They should lead to success anyway.*

4) *Ask the owner of the responsibility: What, if anything, broke in this situation? Were there problems with the design (i.e., who is supposed to do what) or with how the people in the design behaved?*

• *Compare the mental map of "what should have happened" to "what did happen" in order to identify the gap.*

• *If the machine steps were followed, ask, "Is the machine designed well?" If not, what's wrong with the machine?*

5) *Ask the people involved why they handled the issue the way they did. What are the proximate causes of the problem (e.g., "Did not do XYZ")? They will be described using verbs—for example, "Harry did XYZ." What are the root causes? They will be descriptions. For example: inadequate training/experience, lack of vision, lack of ability, lack of judgment, etc. In other words, root cause is not an action or a reaction—it is a reason.*

• *Be willing to touch the nerve.*

6) *Ask the people involved: Is this broadly consistent with prior patterns (yes/no/unsure)? What is the systematic solution? How should the people / machines / responsibilities evolve as a result of this issue?*

• *Confirm that the short-term resolution of the issue has been addressed.*

• *Determine the steps to be taken for long-term solutions and who is responsible for those steps. Specifically:*

a. *Are there responsibilities that need either assigning or greater clarification?*

b. *Are there machine designs that need to be reworked?*

c. *Are there people whose fit for their roles needs to be evaluated?*

… 151) Remember that a root cause is not an action but a reason. It is described by using adjectives rather than verbs. Keep asking "why" to get at root causes, and don't forget to examine problems with people. In fact, since most things are done or not done because someone decided to do them or not do them a certain way, most root causes can be traced to specific people, especially "the responsible party." When the problem is attributable to a person, you have to ask why the person made the mistake to get at the real root cause, and you need to be as accurate in diagnosing a fault in a person as you are in diagnosing a fault in a piece of equipment.

For example, a root cause discovery process might proceed like this:

- "The problem was due to bad programming."

- "Why was there bad programming?"

- "Because Harry programmed it badly."

- "Why did Harry program it badly?"

- "Because he wasn't well trained and because he was in a rush."

- "Why wasn't he well trained? Did his manager know that he wasn't well trained and let him do the job anyway, or did he not know?"

Ultimately it will come down to what the people or the design is like.

… 152) Identify at which step failure occurred in the 5-Step Process. If a person is chronically failing it is due to either lack of training or lack of ability. Which was it? At which of the five steps did the person fail? Different steps require different abilities.

1. Setting goals: This requires big-picture thinking, vision, and values that are consistent with those of our community. (It is helpful to ask whether the responsible party lost sight of the goals or whether he or she set goals that are inconsistent with Bridgewater's.)

2. Perceiving problems: This requires perception, the ability to synthesize, and an intolerance of badness (i.e., some people see badness but aren't sufficiently bothered by it to push themselves to eliminate it). Of course, having perspective (typically gained via experience) helps at all steps.

3. Diagnosis: This requires logic, assertiveness, and open-mindedness. You must be willing to have open and/or difficult discussions to get at the truth.

4. Design: This requires creativity and practical visualization.

5. Doing the tasks: This requires determination and self-discipline.

If you 1) identify at which of these steps the chronic failures are occurring and 2) see which, if any, of these abilities the person is short of, you will go a long way toward diagnosing the problem.

... 153) Remember that a proper diagnosis requires a quality, collaborative, and honest discussion to get at the truth. Don't just give your verdict without exploring the mistake, because there's a reasonably high probability that you don't know the answer. Do not be arrogant. You might have a theory about what happened, and that theory should be explored with relevant others. If you and others are open-minded, you will almost certainly have a quality analysis that will give everyone working theories to explore or you will reach conclusions that can be used for the design phase. And if you do this whenever problems recur, you and others involved will eventually uncover the root causes.

... 154) Keep in mind that diagnoses should produce outcomes. Otherwise there's no purpose in them. The outcome might not take the form of an agreement, but at a minimum it should take the form of theories about root causes (which should be written down so you have a collection of synthesized dots to use for identifying patterns) and clarity about what should be done in the future to protect against them, or to gather information to find out.

... 155) Don't make too much out of one "dot"—synthesize a richer picture by squeezing lots of "dots" quickly and triangulating with others. A dot is a particular outcome. When you diagnose to understand the reason it occurred, you are "squeezing" the dot. Don't try to squeeze too much out of a single dot—it can only tell you so much. Rather, try to collect and squeeze a bunch of dots in an 80/20 way, triangulating with the dots of others, so that you can synthesize a pointillist painting of what the person is like.

... 156) Maintain an emerging synthesis by diagnosing continuously —You must be able to categorize, understand, and observe the evolution of the different parts of your machine/system through time, and synthesize this understanding into a picture of how your machine is working and how it should be modified to improve. But if you don't look into the significant bad outcomes as they occur, you won't really understand what they are symptomatic of, nor will you be able to understand how things are changing through time (e.g., if they are improving or worsening).

... 157) To distinguish between a capacity issue and a capability issue, imagine how the person would perform at that particular function if they had ample capacity. Think back on how they performed in similar functions when they had ample capacity.

... 158) The most common reasons managers fail to produce excellent results or escalate are:

a. They are too removed.

b. They have problems discerning quality differences.

c. They have lost sight of how bad things have become because they have gradually gotten used to their badness (the "frog in the boiling water problem").

d. They have such high pride in their work that they can't bear to admit they are unable to solve their own problems.

e. They fear adverse consequences from admitting failure.

... 159) Avoid "Monday morning quarterbacking." That is, evaluate the merits of a past decision based on what you know now versus what you could have reasonably known at the time of the decision. Do this by asking yourself, "What should a quality person have known and done in that situation?" Also, have a deep understanding of the person who made the decision (how do they think, what type of person are they, did they learn from the situation, etc).

... 160) Identify the principles that were violated. Identify which of these principles apply to the case at hand, review them, and see if they would have helped. Think for yourself what principles are best for handling cases like this. This will help solve not only this problem but it will also help you solve other problems like it.

... 161) Remember that if you have the same people doing the same things, you should expect the same results.

... 162) Use the following "drilldown" technique to gain an 80/20 understanding of a department or sub-department that is having problems. A drilldown is the process by which someone who wants to do so can gain a deep enough understanding of the problems in an area as well as the root causes, so that they can then go on to design a plan to make the department or sub-department excellent. It is not a "diagnosis," which is done for each problem. A manager doing ongoing diagnosis will naturally understand his areas well and won't have to do a drilldown. Drilling down is a form of probing, though it is broader and deeper. Done well, it should get you almost all the information needed to turn a department around in about five hours of effort.

A drilldown takes place in two distinct steps: 1) listing problems and 2) listing causes/diagnosing. It is followed by 3) designing a plan. If done well, getting informed via the first two steps typically takes about four hours (give or take an hour), with the first step of listing the problems typically taking one to two hours and the second step of diagnosing them typically taking two to four hours, if done efficiently.

It's very important that these steps are done separately and independently. That's because going into two or three directions at the same time causes confusion and doesn't allow adequate discussion of each of the possible causes and solutions.

Having the people from the area under scrutiny actively participate in all three steps is critical. You need to hear their descriptions and allow them to argue with you when they think you are wrong. This way you are much more likely to come up with an accurate diagnosis and a good plan.

After the drilldown, you will create the plan or design, which typically takes two to three hours. So the whole process, from asking the first question to coming up with the detailed plan, typically takes about five to eight hours spread over three or four meetings. Then there is step four—the executing, monitoring, and modifying of the plan—which typically takes six to 12 months.

Here is more detail on each of the steps:

Step 1—List the problems. Don't confuse problems with possible solutions. Sometimes problems occur for rare or insignificant reasons because nothing is perfect. Don't pay much attention to those. But more often than not, they are symptomatic of something malfunctioning in your machine, so it pays to investigate what that is. For example, not having enough capacity is not a "problem"; it might

cause problems, but it's not a problem. Having people work so late that they might quit, getting out reports too late, etc., might be problems that are caused by a lack of capacity. But the lack of capacity itself is not a problem. To fix problems, you need to start with the specific problems and address them one by one and come up with very specific solutions. That's because there are lots of ways to solve problems. The problem of people working late at night might be solved by gaining capacity, or it might be solved by shifting work to another department, or by doing less, etc. To assume that lack of capacity is the problem could lead to inferior problem-solving. So unless you keep in mind the very specific problems, you will not be effective at solving them. In the process of solving problems, you will often see that several problems are due to the same cause (e.g., lack of capacity, a shortage of tech resources, bad management, etc.), but that is not the same thing as starting at the more general level (like saying that bad management or lack of capacity, etc., are problems), which is why I am saying you must start with very specific problems before making generalizations. For example, when you have a "people problem," be specific. Specify which people you are having what problems with and avoid the tendency of saying things like, "People in operations aren't..." Avoid the tendency not to name names for fear of offending.

Step 2—Identify root causes. Root causes are the deep-seated reasons behind the actions that caused the problems. It is important to distinguish between proximate causes, which are superficial reasons for what happened (e.g., "I missed the train because I didn't check the train schedule"), and root causes (e.g., "I didn't check the schedule because I am forgetful"). Typically a proximate cause is the action that led to the problem while a root cause is the fundamental reason that action occurred. So, when diagnosing, if you are describing what happened or didn't happen to cause the problem, you are probably describing proximate causes. When you start describing the qualities that were behind these actions, you are probably getting at the root causes. To get at the root cause, keep asking why. For example, if the problem is that people are working late and the direct cause was that there wasn't enough capacity, then ask why there wasn't enough capacity. Then you will get closer to the root cause.

If your machine is producing outcomes that you don't want, either the design is flawed or the parts/people that you dropped into the design are malfunctioning. Most, but not all, problems happen because 1) it isn't clear who the "responsible party" is for making sure things go well[68] or 2) the responsible party isn't handling his or her responsibilities well (in other words, isn't operating according to the

principles to eliminate the problem). So first ask, “Is it clear who the responsible party is?” If not, specify that. If it is clear, then ask, “Why isn’t he or she doing a good job?” There are two possible reasons for someone doing a poor job: insufficient training or insufficient ability.

Though it is essential to connect problems to the responsible parties, this can be difficult if the responsible parties don’t acknowledge their mistakes and fail to diagnose why they made the mistakes. Still, clarity about responsibility and the problems’ root causes must be achieved because otherwise there is no hope for improvement. If the responsible parties do not explicitly take responsibility for ensuring that their areas operate smoothly, their areas will not operate smoothly. An important first step toward achieving clarity is to remove the mentality of blame and credit, because it stands in the way of accurately understanding problems, and that’s a prerequisite for producing improvements. Also, it is important not to judge too quickly what the root causes are. Instead, you should observe the patterns of problems using the issues log as a tool and discuss with the responsible parties what the root causes might be each time a problem arises. You probably won’t initially be able to come to conclusions with a high degree of confidence, because there are many possible reasons for any one problem. But over time, the problems’ patterns and causes will become clear to everyone.

As mentioned, there are two possible reasons why the responsible party handled something badly: 1) the responsible party didn’t encounter this problem enough times previously to learn from it and prevent it in the future (by using the principles) or 2) the responsible party is unsuited for that job. And there are also two possible reasons the person is not suited for that job: 1) not enough experience or training and 2) lack of values and/or abilities required to do the job well. So getting at the root causes is largely a matter of figuring out:

1. Who is the responsible party for what went wrong?

2. Did that person encounter the problem enough times that he or she should have either learned how not to repeat it or elevated it to someone who could have helped learn how to solve it? The conclusions could be the following: 1) If the person did encounter the problem enough times to have resolved or elevated it, then the person is not suitable for the job[69]; 2) if the person did not encounter the problems enough times to resolve or elevate it, what are the probable root causes? The most common root causes are: 1) the person is not suitable for the job in some way (doesn’t learn from mistakes, doesn’t have a high sense of responsibility, is

lazy, etc.); 2) the design of the process is flawed (e.g., the person is doing things in a way that can be improved); or 3) there is no possible solution. If it's the first root cause, the person should have their job changed; if it's the second, you and the person need to properly diagnose the problem and come up with a different process that will work; and if it's the third, you won't know that until you have thoroughly explored whether the process can be remediated.

That second alternative of trying to find a better process takes time and patience (involving you and the person properly diagnosing the problem and finding a different approach that works). Normally, this is the point at which most companies and people fail. That is because people often take the identification of a "mistake" as the equivalent of an accusation that they are flawed (dumb, lazy, etc.), so they become defensive. If instead they view the exercise as an investigation into how the process might be flawed, it's easier to make progress. So when criticizing, it's sometimes helpful to convey explicitly the point of the exercise: mutually diagnosing the problem and exploring the pros and cons of alternative approaches. You both need to be mindful that doing this well typically takes time and patience. One of the purposes of the brainstorming session is to do this, ideally with an agreed diagnosis resulting from it.

Step 3—Create a plan (brief notes):

-Look at each root cause and ask yourself what should be done about it.

-Creating a plan is like writing a movie script in that you visualize who will do what through time in order to achieve the goal.

-Step away from the group to reflect and work on the plan, then bring it back to the group to discuss and modify.

-When developing the plan, iterate through multiple possibilities and play them out in time to help determine the best choice.

-Make sure to assign who is supposed to do what with rough target dates for achieving individual tasks of the plan. Once the plan design is complete, make sure the tasks, responsible parties, and timelines are reasonable and doable.

-While everyone does not need to agree with the plan, it is important that the key people agree that it will work.

Step 4—Implement the plan (brief notes):

- Give each person a monthly to-do list to provide clarity and transparency around responsibilities and expectations for that month. Then plot the progress in open, monthly meetings with all the relevant parties. Explicitly assess how the plan is working and deal with problems that aren't being resolved.

-Make sure to hold responsible parties accountable for target dates and develop metrics around how they are meeting their commitments.

-Regularly look at that list of assigned tasks to track progress and determine if any adjustments are needed. -Create transparency around the plan by posting it publicly and reviewing it regularly with the group. This helps people see the ways in which all of the problems are being addressed and reinforces accountability.

Do not exclude any relevant people from the drilldown: besides losing the benefit of their ideas, you disenfranchise these people from the game plan and reduce their sense of ownership.

Remember that people tell you things they want and tend not to be self-critical. ***It is your job as a manager to get at truth and excellence, not to make people happy.*** For example, the correct path might be to fire some people and replace them with better people, or to put people in jobs they might not want, etc. The brainstorming session must include a discussion of people's weaknesses and failings to get at truth and excellence. Everyone's objective must be to get at the best answer, not the answer that will make people happy. This is especially true for managers. In the long run, the best answers will be the ones that make the people we want to be at Bridgewater happiest.

So…

… 164) Go back before going forward. Before moving forward, take the time to reflect on how the machine worked. By diagnosing what went right and what went wrong (especially what went wrong), you can see how the machine is operating and how it should be improved. People who are just focused on what they should do next are overly focused on the tasks at hand and not on how the machine is working; so they don't make sustainable progress.

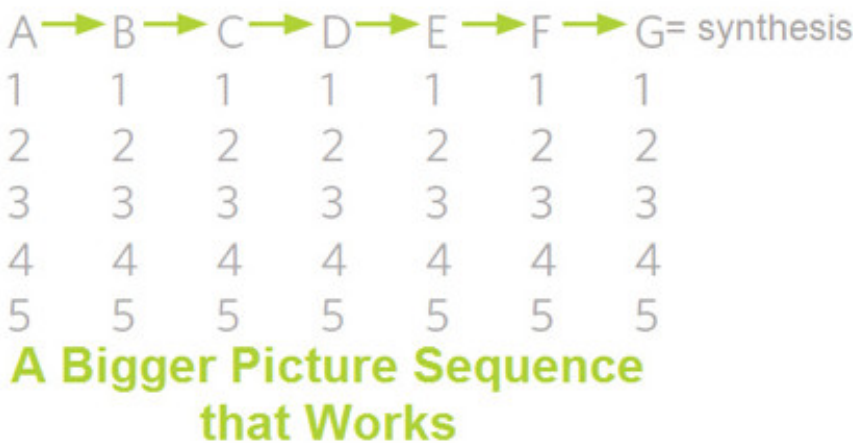
Go back by "telling the story" to help put things in perspective. Sometimes people have problems putting current conditions into perspective or projecting into the future. Sometimes they disagree on cause-effect relationships, or focus on details rather than addressing the big picture. Sometimes they forget who or what caused things to go well or poorly. By asking them to "tell the story" of how we got here, or by "telling the story" yourself, you put where you are in perspective. Doing this highlights important items that were done well or poorly in relation to their consequences, draws attention to the overarching goals, and helps achieve agreement. By telling the story from the past to the present, it will help you continue it into the future (i.e., design a plan). Making a good plan involves sketching out the important events through time and thinking through the specifics in sequence so that when you are done, the final story is vivid and easy to visualize. Then other people can understand the plan, comment on it, and eventually believe in it. It's also required for specifying who should do what and when.

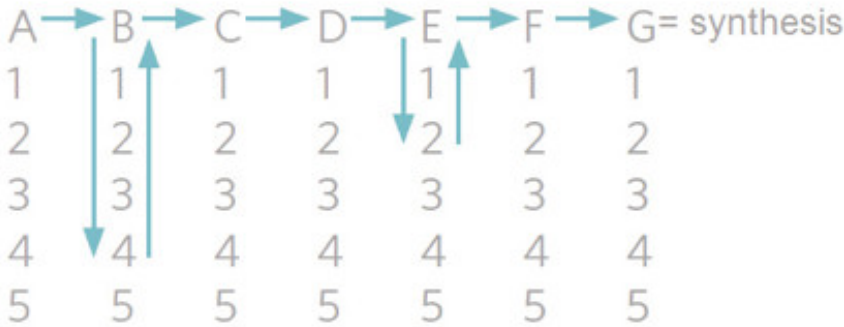
164a) Tool: Have all new employees listen to tapes of "the story" to bring them up to date. Listen to some of the associated tapes about Bridgewater's story. Imagine how much better informed you would be than a person who just joined Bridgewater and hadn't listened to these stories.

… 165) Understand "above the line" and "below the line" thinking and how to navigate between the two. There are different levels and themes going on in any one conversation. It is important to know how to navigate them. If you imagine main points and subordinate points organized in outline form, an above-the-line discussion addresses the main points. That doesn't mean you shouldn't reference details, because some details might be necessary to the discussion. But reference details solely for the purpose of understanding major points

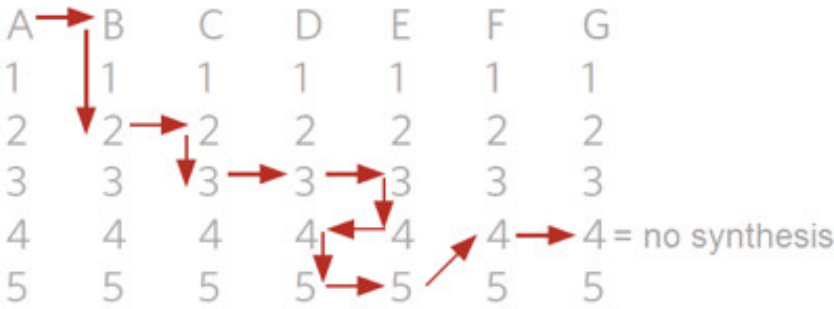
rather than dissecting minor points.

For example, suppose your major point is: “Sally can do that job well.” In an above-the-line conversation, the discussion of her qualities would target the question of Sally’s capacity to do her job. As soon as agreement was reached on whether she could perform competently, you would pass to the next major point—such as what qualities are required for that job. In contrast, a below-the-line discussion would focus on Sally’s qualities for their own sake, without relating them to whether she can do her job well. The discussion might cover qualities that are irrelevant to the job. While both levels of discussion touch on minor points, “above the line” discourse will always move coherently from one major point to the next in much the same way as you can read an outline in order to fully understand the whole concept and reach a conclusion. You go “below the line” to the minor points only to illustrate something important about the major points and progress in an orderly and accurate way to the conclusion. Your ability to do this is partially innate but can be improved with practice.[70]

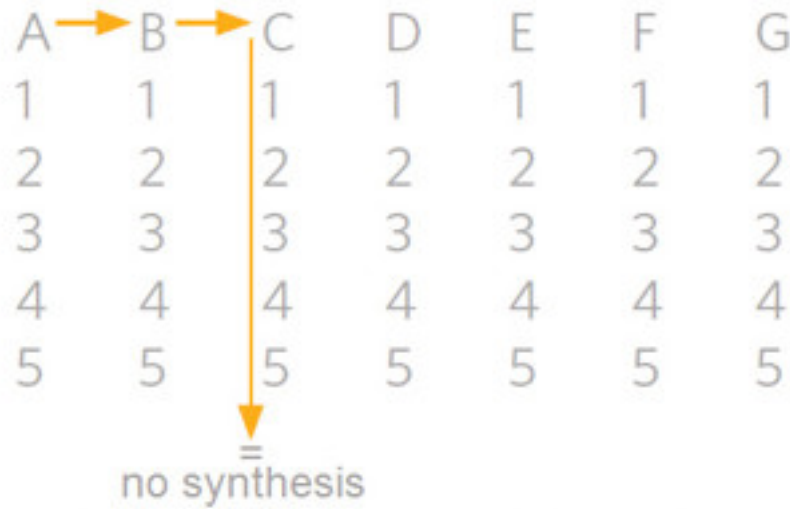




A Logical Sequence that Explores Specifics and Works



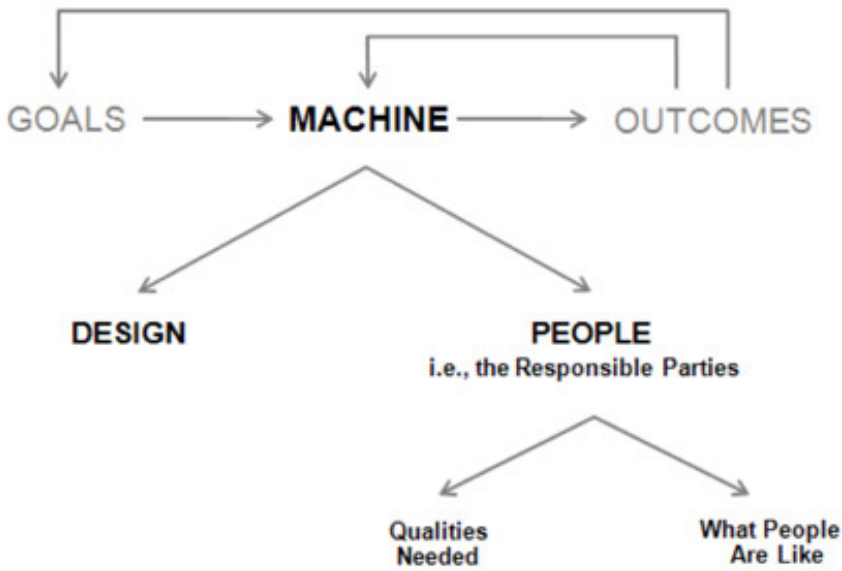
A Random Story that Gets Derailed



A Detailed Story that Gets Derailed

166) Design Your Machine to Achieve Your Goals
So…

… 167) Remember: You are designing a "machine" or system that will produce outcomes. This machine will consist of distinct parts (i.e., people and other resources as well as the way they interact with each other).



167a) A short-term goal probably won't require you to build a machine. But for an ongoing mission, you will need a well-designed and efficient machine.

167b) Beware of paying too much attention to what is coming at you and not enough attention to what your responsibilities are or how your machine should work to achieve your goals. Constantly compare your machine's outcomes to your goals in order to reflect on how well the machine is operating. Examine both the design and how the individual parts are functioning.

… 168) Don't act before thinking. Take the time to come up with a game plan. Take at least a few hours to think through your plan. Those hours will be virtually nothing in relation to the amount of time that will be spent doing, and they will make the doing radically more effective.

... 169) The organizational design you draw up should minimize problems and maximize capitalization on opportunities. Make the design an extension of your understanding of your problems and opportunities.

... 170) Put yourself in the "position of pain" for a while so that you gain a richer understanding of what you're designing for. Temporarily insert yourself into the flow to gain a real understanding of what you are dealing with (the process flow, the type of people needed, the potential problems, etc.) and to visualize a clear picture of what will work. You can accomplish this in a number of ways (reviewing work, doing work at different stages in the process, etc.).

... 171) Recognize that design is an iterative process; between a bad "now" and a good "then" is a "working through it" period. That "working through it" period involves trying processes and people out, seeing what goes well or poorly, learning from the iterations, and moving toward having the right people in the ideal systematic design. Even with a good future design picture in mind, it will naturally take time, testing, mistakes, and learning to get to a good "then" state.

... 172) Visualize alternative machines and their outcomes, and then choose. A good designer is able to visualize the machine and its outcomes accurately, though imperfectly. First visualize the parts and their interactions, and then find the parts to fit the design. Look at all the system's pieces and their interactions. Imagine how goals 1, 2, and 3 can be achieved. Imagine how Harry, Larry, and Sally can operate in various ways with various tools and different incentives and penalties in place to achieve those goals. Then imagine how the system would work differently if you replaced Harry with George, or if it was configured in an entirely different way. Do this iteratively. Think through what the products and people and finances will look like month by month (or quarter by quarter) over the next year given one system; then change the system and visualize the outcomes again. At the end of this process, your plan should look like a realistic movie script, which describes the parties and their interactions through time. Remember that everything takes longer and costs more than you plan for. Recognize that some people are relatively better or worse at visualization. Accurately assess your own abilities and those of others so you can use the most capable people to create the visualization.

... 173) Think about second- and third-order consequences as well as first-order consequences. The outcome you get as a first-order consequence might be desirable (or undesirable), while the second- or third-order consequences could be the opposite, so focusing solely on

first-order consequences, which people tend to do, could lead to bad decision-making. Though I might not like the first-order consequences of a rainy day, I might love the second-order consequences. So if I were in a position to choose whether or not there should be rainy days, I would need to look at the second- and third- order consequences to make the right decision. For example, for every person you plan to hire, you will have to hire more to support them. I call this "The 1.6 Effect."

... 174) Most importantly, build the organization around goals rather than tasks. As an example of building the organization around goals rather than tasks, we have traditionally had a marketing department (goal: to market) that is separate from our client service department (goal: to service clients), even though they do similar things and there would be advantages to having them work together. But because marketing and servicing clients are two distinct goals, we have a separate department for each. If they were merged, the department head, salespeople, client advisors, analysts, and others would be giving and receiving conflicting feedback. If asked why clients were receiving relatively poor attention, the answer might be: "We have incentives to raise sales." Asked why they weren't making sales, the merged department might explain that they need to take care of their clients. Keeping the two areas separate gives each department a clear focus and the appropriate resources to achieve its goals, makes the diagnosis of resource allocations more straightforward, and reduces "job slip." Of course, when building departments around goals, your goals have to be the right size to warrant these resources. An organization might not be big enough to warrant having a few salesmen and its own analytical group. Bridgewater has successfully evolved from a one-cell organization, in which most people were involved in everything, to the current multi-cell organization because we retained our ability to efficiently focus as the organization grew. Also, I want to make clear that temporarily sharing or rotating resources is OK, and is not the same thing as a merging of responsibilities. I will discuss merging later in this document, as well the coordination required to maintain focus in large organizations.

174a) First come up with the best workflow design, sketch it out in an organizational chart, visualize how the parts interact, specify what qualities are required for each job, and, only after that is done, choose the right people to fill the jobs (based on how their capabilities and desires match up with the requirements).

174b) Organize departments and sub-departments around the most

logical groupings. Some groups naturally gravitate toward one another. Trying to impose your own structure without acknowledging these magnetic pulls is ineffective and likely will result in a bad outcome.

174c) Make departments as self-sufficient as possible so that they have control over the resources they need to achieve the goals. We do this because we don't want to create a bureaucracy that forces departments to requisition resources from a pool that lacks the focus to do the job. People sometimes argue that we should have a technology department, but I am against that because building technology is a task, not a goal in and of itself. You build technology to perform valuable tasks. If we kept the tech resources outside the department, we would have people from various departments arguing about whose project is most important in order to garner resources, which isn't good for efficiency. The tech people would be evaluated and managed by bureaucrats rather than the people they do the work for.

174d) The efficiency of an organization decreases and the bureaucracy of an organization increases in direct relation to the increase in the number of people and/or the complexity of the organization.

… 175) Build your organization from the top down. An organization is the opposite of a building— the foundation is at the top. The head of the organization is responsible for designing the organization and for choosing people to fill its boxes. Therefore, make sure you hire managers before their direct reports. Managers can then help design the machine and choose people who complement the machine.

175a) Everyone must be overseen by a believable person who has high standards. Without this strong oversight, there is potential for inadequate quality control, inadequate training, and inadequate appreciation of excellent work. Do not "just trust" people to do their jobs well.

175b) The people at the top of each pyramid should have the skills and focus to manage their direct reports and a deep understanding of their jobs. Here's an example of the confusion that can arise when that understanding is absent: It was proposed that the head of technology have the facilities group (the people who take care of facilities like the building, lunches, office supplies, etc.) report to him because both are, in a sense, "facilities" and because they have some things in common, such as the electrical supply. But the head of technology didn't

understand what the facilities people do. Having people who are responsible for the janitorial services and meals reporting to a technology manager is as inappropriate as having the technology people report to the person who is taking care of facilities. These functions, even if they're considered "facilities" in the broadest sense, are very different, as are the respective skill sets. Similarly, at another time, we talked about combining folks who work on client agreements with those who do counterparty agreements under one manager. That would have been a mistake because the skills required to reach agreements with clients are very different from the ones required to reach agreements with counterparties. It was wrong to conflate both departments under the general heading of "agreements," because each kind called for specific knowledge and skills.

175c) The ratio of senior managers to junior managers and to the number of people who work two levels below should be limited, to preserve quality communication and mutual understanding. Generally, the ratio should not be more than 1:10, and preferably closer to 1:5. Of course, the appropriate ratio will vary depending on how many people your direct reports have reporting to them, the complexity of the jobs they're doing, and the manager's ability to handle several people or projects at once.

175d) The number of layers from top to bottom and the ratio of managers to their direct reports will limit the size of an effective organization.

175e) The larger the organization, the more important are 1) information technology expertise in management and 2) cross-department communication (more on these later).

175f) Do not build the organization to fit the people. Jobs are created based on the work that needs to be done, not what people want to do or what people are available. You can always search outside Bridgewater to find the people who "click" best for a particular role.

… 176) Have the clearest possible delineation of responsibilities and reporting lines. It's required both within and between departments. Make sure reporting lines and designated responsibilities are clear. To avoid confusion, people should not report to two different departments. Dual reporting (reporting across department lines) causes confusion, complicates prioritization, diminishes focus on clear goals, and muddies the lines of supervision and accountability, especially when a person reports to two people in two different departments. When situations require dual reporting, managers need

to be informed. Asking someone from another department to do a task without consulting with his or her manager is strictly prohibited (unless the request will take less than an hour or so). However, appointing co- heads of a department or a sub-department can work well if the managers are in synch and combine complementary and essential strengths to this area; dual reporting in that case can work fine if properly coordinated by the co-heads.

176a) Create an organizational chart to look like a pyramid, with straight lines down that don't cross. A series of descending pyramids make up the whole pyramid, but the number of layers should be limited to minimize hierarchy.

... 177) Constantly think about how to produce leverage. For example, to make training as easy to leverage as possible, document the most common questions and answers through audio, video, or written guidelines and then assign someone to regularly organize them into a manual. Technology can do most tasks, so think creatively about how to design tools that will provide leverage for you and the people who work for you.

177a) You should be able to delegate the details away. If you can't, you either have problems with managing or training or you have the wrong people doing the job. The real sign of a master manager is that he doesn't have to "do" practically anything. Of course, a great manager has to hire and oversee the people who do things; but a "supreme master" manager can even hire a person or two to do this and has achieved such leverage that things are effortlessly running superbly. Of course, there is a continuum related to this. The main message I'm trying to convey is that managers should strive to hire, train, and oversee in a way in which others can superbly handle as much as possible on their own. Managers should view the need to get involved in the nitty-gritty themselves as a bad sign.

177b) It is far better to find a few smart people and give them the best technology than to have a greater number of ordinary and less well-equipped people. First of all, great people and great technology are almost always a great value because their effectiveness in enhancing the organization's productivity can be enormous. Second, it is desirable to have smart people have the widest possible span of understanding and control because fragmented understanding and control create inefficiencies and undermine organizational cohesion. Usually it is the person's capacity that limits the scope of his understanding and control. So the mix of really smart people operating with really great technology in a streamlined organization is

optimal for organizational efficiency.

177c) Use "leveragers." Leveragers are capable of doing a lot to get your concepts implemented. Conceptualizing and managing are most important and take only about 10% of the time needed for implementing; so if you have good leveragers, you can accomplish a lot more with relative ease.

… 178) Understand the clover-leaf design. Find two or three responsible parties who have overlapping believabilities and responsibilities and who are willing to challenge and check each other. If you do this, and those people are willing to fight for what they believe is best by being open-minded and assertive at the same time, and if they escalate their disagreements and failures to you, this process will have a high probability of sorting issues that they can probably handle well from issues that you should examine and resolve with them.

… 179) Don't do work for people in another department or grab people from another department to do work for you unless you speak to the boss.

… 180) Watch out for "department slip." This happens when a support department, such as HR or Facilities, mistakes its responsibilities to provide support with a responsibility to determine how the thing they are supporting should be done. An example of this sort of mistake is if those in the Recruiting department think they should determine whom we should hire or if people in HR think they should determine what our employment policies should be. Another example would be if the Facilities group determined what facilities we should have. While support departments should know the goals of the people they're supporting and provide feedback regarding possible choices, they are not the ones to determine the vision.

… 181) Assign responsibilities based on workflow design and people's abilities, not job titles. What people do should primarily be a function of the job they have, and it should be pretty obvious who should do what (if they're suited for the job). For example, just because someone is responsible for "human resources," "recruiting," "legal," "programming," etc., doesn't necessarily mean they are the appropriate person to do everything associated with those functions. For example, though "Human Resources" people help with hiring, firing, and providing benefits, it would be a mistake to give them the responsibility of determining who gets hired and fired and what benefits are provided to employees. When assigning responsibilities,

think about both the workflow design and a person's abilities, not the job title.

… 182) Watch out for consultant addiction. Beware of the chronic use of consultants to do work that should be done by employees.

… 183) Tool: Maintain a procedures manual. This is the document in which you describe how all of the pieces of your machine work. There needs to be enough specificity so that operators of the different pieces of the machine can refer to the manual to help them do their job. The manual should be a living document that includes output from the issues log so that mistakes already identified and diagnosed aren't repeated. It prevents forgetting previous learning and facilitates communication.

… 184) Tool: Use checklists. When people are assigned tasks, it is generally desirable to have these captured on checklists so they can check off each item as it is done. If not, there is a risk that people will gradually not do the agreed tasks or there will be lack of clarity. Crossing items off a checklist will serve as a task reminder and confirmation of what has been done.

184a) Don't confuse checklists with personal responsibility. People should be expected to do their job well, not just what is on their checklists.

184b) Remember that "systematic" doesn't necessarily mean computerized. It might mean having people do specified tasks and indicate that they have done them with checklists.

184c) Use "double-do" rather than "double-check" to make sure mission-critical tasks are done correctly. When people double-check someone else's work, there is a much lower rate of catching errors than when two parties independently do the work and the results are compared. Double-doing is having two different people doing the same task on the same job so that two independent answers are derived. By comparing them you will not only assure better answers but you will see the differences in people's performances and make much more rapid improvement. I use double-dos in critical areas such as finance, where large amounts of money are involved.

… 185) Watch out for "job slip." Job slip is when a job changes without being explicitly thought through and agreed to, generally because of changing circumstances or a temporary necessity. Job slip will generally cause bad job design. It often leads to the wrong people handling the wrong responsibilities and confusion over who is

supposed to do what.

... 186) Think clearly how things should go, and when they aren't going that way, acknowledge it and investigate. First decide which issue to address first: finding the reason the machine isn't working well or executing the tasks required to get past the problem (in which case you need to come back to the reasons later). Either way, don't pass the problem by without discussing the reasons. Otherwise, you will end up with job slip.

... 187) Have good controls so that you are not exposed to the dishonesty of others and trust is never an issue. A higher percentage of the population than you might imagine will cheat if given an opportunity, and most people who are given the choice of being "fair" with you and taking more for themselves will choose taking more for themselves. Even a tiny amount of cheating is intolerable, so your happiness and success will depend on your controls. Security controls should be viewed as a necessary tool of our profession, not as a personal affront to an individual's integrity. Just as a bank teller doesn't view a check on the money in his drawer as an indication that the bank thinks he is dishonest, everyone here should understand the need for our security controls. Explain this to your people so they see it in the proper context. Even the best controls will never be foolproof, and trustworthiness is a quality that should be appreciated.

187a) People doing auditing should report to people outside the department being audited, and auditing procedures should not be made known to those being audited.

187b) Remember: There is no sense in having laws unless you have policemen (auditors).

188) Do What You Set Out to Do
So…

… 189) Push through! You can make great things happen, but you must MAKE great things happen. Times will come when the choice will be to plod along normally or to push through to achieve the goal. The choice should be obvious.[71]

190) Recognize the Power of Knowing How to Deal with Not Knowing ***So...***

... 191) Recognize that your goal is to come up with the best answer, that the probability of your having it is small, and that even if you have it, you can't be confident that you do have it unless you have other believable people test you.

... 192) Understand that the ability to deal with not knowing is far more powerful than knowing. That is because there's way more that we don't know than what we could possibly ever know.

192a) Embrace the power of asking: "What don't I know, and what should I do about it?" Generally you should find believable people and ask their advice, remembering that you are looking to understand their reasoning rather than get their conclusions.

192b) Finding the path to success is at least as dependent on coming up with the right questions as coming up with answers. Successful people are great at asking the important questions and then finding the answers. When faced with a problem, they first ask themselves if they know all the important questions about it; they are objective in assessing the probability that they have the answers; and they are good at open-mindedly seeking believable people to ask.

... 193) Remember that your goal is to find the best answer, not to give the best one you have. The answer doesn't have to be in your head; you can look outside of you. In life the goal is for you to do the right thing, considering the probability that you might be wrong. So it is invaluable to know what you don't know so that you can figure out a way to find out and/or to get help from others.

... 194) While everyone has the right to have questions and theories, only believable people have the right to have opinions. If you can't successfully ski down a difficult slope, you shouldn't tell others how to do it, though you can ask questions about it and even express your views about possible ways if you make clear that you are unsure.

... 195) Constantly worry about what you are missing. Even if you acknowledge you are a "dumb shit" and are following the principles and are designing around your weaknesses, understand that you still might be missing things. You will get better and be safer this way.

195a) Successful people ask for the criticism of others and consider its merit.

195b) Triangulate your view. Never make any important decisions without asking at least three believable people. Don't ask them for their conclusions or just do what they tell you to do. Understand, visualize, and assess their reasoning to see if it makes sense to you. Ask them to probe your own reasoning. That's critical to your learning as well as to your successful handling of your responsibilities.

196) MAKE ALL DECISIONS LOGICALLY, AS EXPECTED VALUE CALCULATIONS
So…

… 197) Considering both the probabilities and the payoffs of the consequences, make sure that the probability of the unacceptable (i.e., the risk of ruin) is nil.

197a) The cost of a bad decision is equal to or greater than the reward of a good decision, so knowing what you don't know is at least as valuable as knowing.

197b) Recognize opportunities where there isn't much to lose and a lot to gain, even if the probability of the gain happening is low. It is a reality that there are always multiple possibilities and nothing is certain. All decisions are therefore risk/reward bets. Know how to pursue fabulous risk/reward ratios that have a huge upside and very little downside, albeit a small probability of happening. My life has been filled with these.

197c) Understand how valuable it is to raise the probability that your decision will be right by accurately assessing the probability of your being right. I often observe people giving opinions as soon as they have them, which seems at about the point that they think there's more than a 50% chance of them being right. Often they don't pay any attention to the value of raising the probability of being right (e.g., from 51% to 85%) by reflecting harder on whether the answer is right and doing the investigations and double-checking with others to make sure that the answer is right. Remember that, in an expected value sense, raising the probability of being right (e.g., from 51% to 85%) can be worth more than just going from probably wrong (e.g., 45%) to probably being right (e.g., 51%) because we are all playing probabilities. Think about the effects of altering the probabilities of achieving must-dos: if you have a 51% probability of handling a "must-do" correctly, it means that only a bit more than half of your must-dos will be done appropriately, whereas an 85% probability of handling a decision well means that only 15% of the must-dos will be handled badly.

197d) Don't bet too much on anything. Make 15 or more good, uncorrelated bets.

198) Remember the 80/20 Rule, and Know What the Key 20% Is
So…

… 199) Distinguish the important things from the unimportant things and deal with the important things first.

199a) Don't be a perfectionist, because perfectionists often spend too much time on little differences at the margins at the expense of other big, important things. Be an effective imperfectionist. Solutions that broadly work well (e.g., how people should contact each other in the event of crises) are generally better than highly specialized solutions (e.g., how each person should contact each other in the event of every conceivable crisis), especially in the early stages of a plan. There generally isn't much gained by lots of detail relative to a good broad solution. Complicated procedures are tough to remember, and it takes a lot of time to make such detailed plans (so they might not even be ready when needed).

199b) Since 80% of the juice can be gotten with the first 20% of the squeezing, there are relatively few (typically less than five) important things to consider in making a decision. For each of them, the marginal gains of studying them past a certain point are limited.

199c) Watch out for "detail anxiety," i.e., worrying inappropriately about unimportant, small things.

199d) Don't mistake small things for unimportant things, because some small things can be very important (e.g., hugging a loved one).

… 200) Think about the appropriate time to make a decision in light of the marginal gains made by acquiring additional information versus the marginal costs of postponing the decision. There are some decisions that are best made after acquiring more information, and some that are best made sooner rather than later. The later a decision is made, the more informed it can be; however, making it later can also have adverse consequences (e.g., postponing progress). Understanding the trade-off between the marginal gains of acquiring the extra information against the marginal costs of postponing a decision is an important factor in the timing and preparation of decision-making.

… 201) Make sure all the "must do's" are above the bar before you do anything else. First, distinguish between your "must do's" and your

"like to do's". Don't overlook any "must do's," and don't mistakenly slip the "like to do's" onto the list. Then, get all the "must do's" above the bar. Then get all the "must do's" excellent. If you have time, turn to the "like to do's" and try to get them above the bar. Only if you have time (though you certainly will not if you are thinking broadly), turn toward making things perfect. Chances are, you won't have to deal with the unimportant things, which is better than not having time to deal with the important things. I often hear people say, "Wouldn't it be good to do this or that," referring to nice-to-do's rather than must-do's that have to be above the bar. Chances are, they are being distracted from far more important things that need to be done well.

... 202) Remember that the best choices are the ones with more pros than cons, not those that don't have any cons. Watch out for people who tend to argue against something because they can find something wrong with it without properly weighing all the pros against the cons. Such people tend to be poor decision-makers.

... 203) Watch out for unproductively identifying possibilities without assigning them probabilities, because it screws up prioritization. You can recognize this with phrases like "It's possible that..." then going on to say something that's improbable and/or unimportant, rather than something like, "I think there's a good chance that..." followed by something that's important or probable. Almost anything is possible. All possibilities must be looked at in terms of their likelihoods and prioritized.

... 204) Understand the concept and use the phrase "by and large." Too often I hear discussions fail to progress when a statement is made and the person to whom it is made replies, "Not always," leading to a discussion of the exceptions rather than the rule. For example, a statement like "The people in the XYZ Department are working too many hours" might lead to a response like "Not all of them are; Sally and Bill are working normal hours," which could lead to a discussion of whether Sally and Bill are working too long, which derails the discussion. Because nothing is 100% true, conversations can get off track if they turn to whether exceptions exist, which is especially foolish if both parties agree that the statement is by and large true. To avoid this problem, the person making such statements might use the term "by and large," like "By and large, the people in the XYZ Department are working too many hours." People hearing that should consider whether it is a "by and large" statement and treat it accordingly.

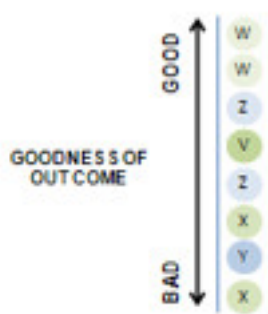
204a) When you ask someone whether something is true and they

tell you that “It’s not totally true,” it’s probably true enough.

205) SYNTHESIZE
So…

… 206) Understand and connect the dots. To do this well, you have to synthesize what is going on. Usually it takes diagnosing a few (e.g., five or so) dots of the same type to get at the true root cause so that you can see how the machine should be modified to produce better outcomes. For example, one type of outcome involves someone, let's call him Harry, handling a type of responsibility (entering an order). You will need at least a few experiences to learn about Harry doing this. It will pay for you to understand Harry and his handling of orders and have him understand you by looking objectively at the outcomes and by getting in synch, especially about the bad outcomes. The quality of your understanding of your machine and its constituent parts will depend on how well you diagnose and process the important outcomes. If you don't do this continuously and you don't synthesize well, you will fail. This isn't easy.

See how the dots connect through time. This requires collecting, analyzing, and sorting lots of different types, and it ain't easy for most folks. Imagine a day in which eight outcomes occur. Some are good, some bad. Let's represent this day as follows, with each type of event represented by a letter and the quality of the outcome represented by its height.

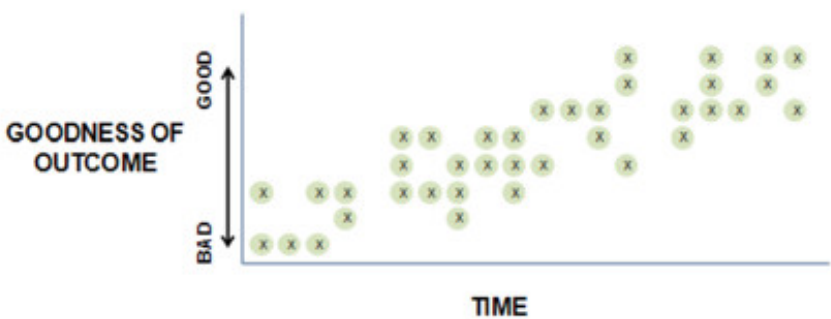


In order to see the day this way, you must categorize outcomes by type and quality, which will require synthesizing a "by and large" assessment of each. If you didn't examine the bad outcomes as they occurred, you couldn't understand what they are symptomatic of.

Keep in mind our example is a relatively simple one: only eight occurrences over one day. Now let's look at what a month looks like.

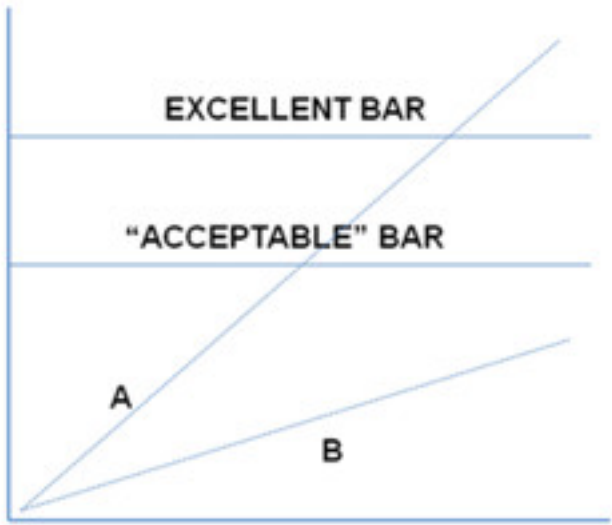
Confusing, eh? Some people are much better at this than others.

In order to understand how your machine is working to achieve your goals, you have to perceive change over time, charting improvement vs. deterioration. The chart below plots just the type X dots, which you can see improving. As mentioned in the section on diagnosis, you must categorize, understand, and observe the evolution of the different parts of your machine through time, and synthesize this understanding into a picture of how your machine is working and how it should be improved. People who do this well are rare and essential. As with most abilities, synthesizing well is partially innate and partially learned through practice.



... 207) Understand what an acceptable rate of improvement is, and that it is the level and not the rate of change that matters most. I often hear people say, "It's getting better," as though that is good enough when "it" is both below that bar and improving at an inadequate rate. That isn't good enough. For example, if someone who

has been getting 30s and 40s on tests raised his grade to the 50s, you could say he's improving but the level is still woefully inadequate. Everything important you manage has to be on a trajectory to be "above the bar" and headed for "excellent" at an acceptable pace. For example, in the chart below, the trajectory of A might be acceptable, but B's trajectory is not. A gets us above the bar in an acceptable amount of time.



… 208) If your best solution isn't good enough, think harder or escalate that you can't produce a solution that is good enough. A common mistake is accepting your own best solution when it isn't good enough.

… 209) Avoid the temptation to compromise on that which is uncompromisable. You must have and achieve high standards. This is particularly difficult when two uncompromisable things are at odds. At such times, there is a tendency to let one of them go. However, at such times you have to allocate more time to figure out how to best handle this, be more creative, and ask for more input. But don't compromise on one of the things that shouldn't be compromised. For example, one of the uncompromisable things I regularly get pressure from people to compromise on is letting great people avoid exploring their mistakes and weaknesses because they find it painful. For reasons articulated throughout these principles, I believe we can't compromise on this because that process of exploration is healthy for Bridgewater, healthy for them, and key to our culture. I also believe

that to allow opt-outs would legitimatize two sets of rules and put our radically honest way of being in jeopardy. But I want great people.[72]

... 210) Don't try to please everyone. Not everyone is going to be happy about every decision you make, especially the decisions that say they can't do something.

[1] Since I learned these principles by encountering reality and reflecting on my encounters, and I am still doing these things, I expect there are more principles to come. So I am still creating this document by throwing various thoughts down when they occur to me, trying to put them in some sensible order and trying to smooth over the bumps. Organizing these principles into a sensible order is a challenge since they relate to each other more like a matrix than as a sequence. To help guide you, I've tried to organize them around large themes like building a great culture, managing people well, and creative problem-solving. I will continue these things, so this is an evolving document.

[2] While this particular document will always express just what I believe, others will certainly have their own principles, and possibly even their own principles documents, and future managers of Bridgewater will work in their own ways to determine what principles Bridgewater will operate by. At most, this will remain as one reference of principles for people to consider when they are deciding what's important and how to behave.

[3] I wish everyone wrote down their principles. I wish I could read and compare the principles of all the people I'm interested in— Steve Jobs, Albert Einstein, people running for political office, people I share my life with, etc. I'd love to know what they value most and what principles they use to get what they want. Imagine how great that would be—e.g. imagine how much valuable fundamental thinking could be harnessed. I hope that my doing this will encourage others to do the same.

[4] Rote memory is memory for things that don't have an intrinsic logic for being what they are, like a random series of numbers, words in a foreign language and people's names (all of which I have trouble with). On the other hand, I have a great memory for things that make sense in a context. For example, I can tell you what happened in every year in the economy and markets since the mid-1960s and how many things work.

[5] The way I learn is to immerse myself in something, which prompts questions, which I answer, prompting more questions, until I reach a conclusion.

[6] This included my retail stockbroker, the people I was caddying for, even my local barber, who was equally engrossed in the stock market.

(It wasn't as precocious as it sounds. At the time, instead of talking about the Yankees, everyone was talking about stocks. That was the world I grew up in.)
[7] Sometimes when I know that I don't know which way the coin is going to flip, I try to position myself so that it won't have an impact on me either way. In other words, I don't make an inadvertent bet. I try to limit my bets to the limited number of things I am confident in.
[8] By the way, I still meditate and I still find it helpful.

[9] It is unethical because a basic principle of justice is that everyone has the right to face his accuser. And it is unproductive because it does not lead to the exploration of "Is it true?" which can lead to understanding and improvement.
[10] I do not mean that you should say everything you think, just that what you do say matches your thoughts
[11] The word "integrity" is from the Latin root "integer," which means "one" i.e., that you are the same inside and out. Most people would be insulted if you told them that they don't have integrity—but how many people do you know who tell people what they really think?
[12] I believe that our society's "mistakephobia" is crippling, a problem that begins in most elementary schools, where we learn to learn what we are taught rather than to form our own goals and to figure out how to achieve them. We are fed with facts and tested and those who make the fewest mistakes are considered to be the smart ones, so we learn that it is embarrassing to not know and to make mistakes. Our education system spends virtually no time on how to learn from mistakes, yet this is critical to real learning. As a result, school typically doesn't prepare young people for real life—unless their lives are spent following instructions and pleasing others. In my opinion, that's why so many students who succeed in school fail in life.
[13] After all, isn't the point of learning to help you get what you want? So don't you have to start with what you want and figure out what you have to learn in order to get it?
[14] In fact I believe that most people who are quick to come up with answers simply haven't thought about all the ways that they can be wrong.
[15] I don't mean that the more pain the better. I believe that too much pain can break someone and that the absence of pain typically prevents growth so that one should accept the amount of pain that is consistent with achieving one's objectives.
[16] I have been very lucky because I have had the opportunity to see what it's like to have little or no money and what it's like to have a lot of it. I'm lucky because people make such a big deal of it and, if I didn't experience both, I wouldn't be able to know how important it

really is for me. I can't comment on what having a lot of money means to others, but I do know that for me, having a lot more money isn't a lot better than having enough to cover the basics. That's because, for me, the best things in life—meaningful work, meaningful relationships, interesting experiences, good food, sleep, music, ideas, sex, and other basic needs and pleasures— are not, past a certain point, materially improved upon by having a lot of money. For me, money has always been very important to the point that I could have these basics covered and never very important beyond that. That doesn't mean that I don't think that having more is good–it's just that I don't think it's a big deal. So, while I spend money on some very expensive things that cost multiples relative to the more fundamental things, these expensive things have never brought me much enjoyment relative to the much cheaper, more fundamental things. They were just like cherries on the cake. For my tastes, if I had to choose, I'd rather be a backpacker who is exploring the world with little money than a big income earner who is in a job I don't enjoy. (Though being in a job that provides me with what I want is best of all, for me). Also, from having come from having next-to-nothing to having a lot, I have developed a strong belief that, all things being equal, offering equal opportunity is fundamental to being good, while handing out money to capable people that weakens their need to get stronger and contribute to society is bad.

[17] I recognize that sometimes a discovery is made by accident, but the discovery is of some basic underlying principle that creates understanding of a cause-effect relationship that leads to a desired result.

[18] In fact, it appears to me that everything other than evolution eventually disintegrates and that we all are, and everything else is, vehicles for evolution.

[19] Of course, we are often satisfied with the same things – relationships, careers, etc.—but when that is the case, it is typically because we are getting new enjoyments from the new dimensions of these things.

[20] The marginal benefits of moving from a shortage to an abundance of anything decline.

[21] When pursuing self-interest is in conflict with evolution, it is typically punished.

[22] Of course, there are many people who give society what it wants but are paid poorly. This is explained by the law of supply and demand.

[23] I do know some successful people who are obsessed with making money despite making money having little or no marginal benefit for

them.

[24] Darwin is reported to have said, “It is not the strongest of the species that survives, nor the most intelligent that survives. It is the one that is the most adaptable to change.”

[25] Your ability to see the changing landscape and adapt is more a function of your perceptive and reasoning abilities than your ability to learn and process quickly.

[26] Of course it is true that people are born with differences in their various innate abilities. However, judgment is primarily learned.

[27] As Freud put it, “Love and work are the cornerstones of our humanness.”

[28] The work doesn’t necessarily have to be a job, though I believe it’s generally better if it is a job. It can be any kind of long-term challenge that leads to personal improvement. As you might have guessed, I believe that the need to have meaningful work is connected to man’s innate desire to improve. And relationships are the natural connections to others that make us relevant to society.

[29] There are literally two different parts of each person’s brain that influence these reactions: the pre-frontal cortex and the amygdala. They work as though they were two different brains that fight for control of decision-making. The pre-frontal cortex is the logical part of the brain that evaluates choices logically and the amygdala is the “animal instinct” part of the brain that triggers emotional reactions like the instinct to fight or flee. When faced with an obstacle or threat, an emotional reaction (e.g. pain) can be triggered that can lead to a fight or flight reaction that “hijacks” decision making away from the pre-frontal cortex, where the rational choices are being made. This can result in our making decisions that produce consequences that we do not want. This typically causes really big problems.

[30] Your very unique power of reflectiveness—i.e., your ability to look at yourself, the world around you, and the relationship between you and the world—means that you can think deeply and weigh subtle things to come up with learning and wise choices. Asking other believable people about the root causes of your pain in order to enhance your reflections is also typically very helpful— especially others who have opposing views and who share your interest in finding the truth rather than being proven right.

[31] If you can reflect deeply about your problems, they almost always shrink or disappear, because you almost always find a better way of dealing with them than if you don’t face them head on. The more difficult the problem, the more important it is that you think hard about it and deal with it. After seeing how effectively facing reality—especially your problems, mistakes and weaknesses— works, I believe you will become comfortable with it and won’t want to operate any

other way.

[32] An example of this is what discussed earlier: wanting to save the wildebeest from the hyenas. When you don't want to face what's really happening, you can't make sound decisions.

[33] For example, if you are dumb or ugly, you are unlikely to acknowledge it, even though doing so would help you better deal with that reality. Recognizing such "harsh realities" is both very painful and very productive.

[34] I am not saying that we all have the same potential, just that to get the most of your potential—whatever that is—you must learn and earn.

[35] As I mentioned in the first chapter, you don't have to know everything to get what you want. You just have to be honest with yourself about what you don't know and know who to ask for help.

[36] Sometimes it can be difficult to anticipate the 2nd or 3rd order consequences of a decision, such as one that involves using complex technology like X-Rays or DDT, where either things are not what they seem to be or there are too many unknown variables to make a sound decision. For more on the probabilities of personal decision-making, please refer to the "To Make Decisions Effectively" section at the end of Part 3.

[37] Blaming others is NOT the same thing as holding others accountable, which we will discuss in my Management Principles.

[38] Luck—both good and bad—is a reality. But it is not a reason for an excuse. In life, we have a large number of choices, and luck can play a dominant role in the outcomes of our choices. But if you have a large enough sample size—if you have large number of decisions (if you are playing a lot of poker hands, for example)—over time, luck will cancel out and skill will have a dominant role in determining outcomes. A superior decision-maker will produce superior outcomes. That does not mean there won't be certain bad- (or good-) luck events that are life changing: a friend of mine dove into a swimming pool and became a quadriplegic. But he approached his situation well and became as happy as anybody else, because there are many paths to happiness. What happens to a lot of people is that they don't take personal responsibility for their outcomes, and as a result fail to make the best possible decisions.

[39] As I mentioned earlier, I believe that nature is symbiotic—and that we must give to it for it to give back.

[40] The you I am referring to here is the strategic you – the one who is deciding on what you want and how best to get it, previously referred to as you (1).

[41] Some societies define evil to be the desires that can take you away from your goals, which I think is a good way of seeing the difference

between goals and desires. That doesn't mean I think that there isn't room for a little "bad", but I do think that desires that fundamentally divert you from your goals should be avoided at all cost.

[42] This might sound inconsistent with the previous point that you can't have everything. It's not. I am saying that, at this stage of goal-setting, don't set your goals based on what you think you can achieve. In the process of doing the other four steps (especially designing) you will thoroughly think through what is possible. Then you will circle back and enter the goal-setting mode again. As I mentioned, this five-step process is iterative, but it must be pursued one step at a time in order to do each step excellently.

[43] The more creative I am, the less hard I have to work.

[44] Though I've said it before, it's worth saying again: I understand that recognizing harsh realities can be extremely painful. But I've learned that if you can stare hard at your problems, they almost always shrink or disappear, because you almost always find a better way of dealing with them than if you don't face them head on. The more difficult the problem, the more important it is that you stare at it and deal with it. After seeing how effectively facing reality – especially your problems, mistakes and weaknesses – works, you will become comfortable with it and won't want to operate any other way. I also believe that one of the best ways of getting at truth is reflecting with others who have opposing views and who share your interest in finding the truth rather than being proven right.

[45] This is typically because they let their emotions control their behavior and/or they haven't learned how to deal with their problems e.g., the amygdala is "hijacking" decision-making away from the pre-frontal cortex.

[46] There are also other antidotes that we will delve into in the next book.

[47] Not caring to solve problems often occurs when the expected reward is less than the expected cost. For example, when someone is working toward someone else's goals without being appropriately supervised, rewarded or punished.

[48] The organization Outward Bound has a concept that is helpful in thinking about the optimal pace of personal evolution. They speak of a comfort zone, a stretch zone and a panic zone. It's best to spend most of your time in the stretch zone.

[49] Thomas Edison said about failure: "I have not failed. I've just found 10,000 ways that don't work." "I am not discouraged, because every wrong attempt discarded is another step forward." "Results! Why, man, I have gotten a lot of results. I know several thousand things that won't work." "When I have fully decided that a result is worth getting I go ahead of it and make trial after trial until it comes."

“Many of life’s failures are men who did not realize how close they were to success when they gave up.”

[50] A good book about this is Einstein’s Mistakes by Hans Ohanian.

[51] If you recognize short-term failure as a step toward long-term success, which it really is if you learn from it, you won’t be afraid of it or made uncomfortable by it and you will approach all of your experiences as learning experiences, even the most difficult ones.

[52] Ego often stands in the way of acknowledging your weaknesses (which is the essential first step in overcoming them), like being afraid to ask a question because people might think you’re stupid because you don’t know something. Yet acknowledging those weaknesses (e.g., “I know I‘m a dumb shit, but I’d just like to know...”) helps you move beyond ego toward learning and improving.

[53] Most people have a tough time disagreeing about the most trivial things, like whether they like the same restaurant, yet are happy to confidently express their opinions, however badly they are formed, if they get them out first. As a result, there is an overabundance of confident bad opinions around and very few thoughtful conclusions arising from learning from each other. It is common for conversations to be exchanges of sentences that begin “I think...” followed by their conclusions, and both parties believing that they had a good conversation and feeling good about each other, even though nothing was accomplished. If most people did the opposite—i.e., if they sought out and open-mindedly explored their disagreements—it would produce a radical increase in learning, and the world would be a much better place.

[54] In fact, I once toyed with the possibility of developing a voting system based on a believability matrix. Though that might not be possible for practical reasons, it suggests the merit-based decision-making we aspire toward with our current process. The challenging and probing we encourage are not meant to second-guess every decision but to help us assess the quality of our work over time.

[55] The thing that I like least (or dislike most) about my job is fighting to maintain standards, but it must be done. I know that the only way for me to succeed and to be happy is to have good people do it for me, which means that I have to hire, train, and sort out people. It is futile to give responsibilities to people who do not have the qualities required to succeed. It frustrates, and inevitably angers, all parties, which is subversive to the environment. So, hiring, training, and sorting out people so that responsibilities are placed in the hands of people who can be trusted to do an excellent job is the only viable path, and is extremely satisfying.

[56] I have particularly valued psychologist Bob Eichinger.

[57] I am convinced that we are just scratching the surface of understanding differences in how people think and how to test for it, so there is great potential for others to follow this path. Unfortunately, most of the world's experts I have met are more theoretical than practical.

[58] A good book on this is A Whole New Mind by Daniel H. Pink, and a good article on the science of this is "A Wandering Mind Heads Straight Toward Insight" by Robert Lee Hotz from The Wall Street Journal.

[59] "Bright" people have high IQs, are highly analytical thinkers, and can solve complex mental problems.

[60] "Smart" people have common sense, are good at synthesizing, and can imagine what is possible.

[61] Even the "mistakes" that nature makes have a purpose; they are essential for the evolutionary process.

[62] The importance of a skill will vary according to the job. The more knowledge-dependent and independent in nature the job is (e.g., a programmer or lawyer whose job isn't to think about the direction of the company), the more relevant the required skills are.

[63] Consider how few important decisions you make as a student from first grade through college. Other than deciding which college to attend in the senior year of high school and which major to pursue in the sophomore year of college, most people normally just do what they are told to do.

[64] You learn principles by experiencing the rewards and punishments of your actions interacting with reality. The clearer the relationship is between cause and effect, the better it is for learning and evolving. So clearly designated responsibilities enhance the feedback and learning process. For example, if you are in the woods and have to survive on your own, the connection between your actions and their results is clearer and is all that matters. Blame doesn't enter into it as it gets you nothing. All that you focus on are the interactions between your actions and their results.

[65] If you answered C and A, you understand the concept. If you didn't, think again.

[66] Child psychologists, dog trainers, and other behavior modification specialists will tell you that constant, no-exception feedback is fundamental to good training.

[67] I believe that school overrates the importance of intellectualized learning. People who were terrific in school and very good at this type of learning tend to overvalue it, or at least fail to distinguish it from the experiential/internalized kind of learning. This lack of differentiation can become a great peril later in life. Many people who have had great academic success need to be mindful of this challenge,

especially if their success has been in the “sciences,” such as math and engineering. I also believe this is why hands-on experience is particularly valuable for these types of people.

[68] Which would be because the manager—the responsible party for making it clear who is responsible for what—is failing to do that well.

[69] That doesn’t mean that all people have to solve and prevent all repeating problems or they shouldn’t be in their jobs. That might not be possible because smaller, repeating problems might be consciously accepted until they become high enough priorities to be fixed. However, it does mean that repeating problems should be recognized and, if not able to be resolved, they must be elevated.

[70] Good conceptual thinkers naturally see things in this outline-like form and know how to navigate. They know whether they are having an above-the-line conversation and appropriately delving, and they know how to navigate between both levels. Poor conceptual thinkers tend to get confused because they see things as one big pile of information from which they pick data points almost at random.

[71] As Lee Ann Womack’s country and western song says, when you have a choice between sitting it out or dancing, I hope you'll dance.

[72] Everyone is wrestling with some things, but most people don’t talk about them—some people don’t like to probe you about your weaknesses because they think it’s unkind or awkward. And it’s often difficult for us to see and accept our own weaknesses. So when you are really in synch with others about what you’re wrestling with, that is a great step forward, because this feedback is probably true.

Table of Contents

Part 1: The Importance of Principles
Part 2: My Most Fundamental Life Principles
Part 3: My Management Principles
[1]
[2]
[3]
[4]
[5]
[6]
[7]
[8]
[9]
[10]
[11]
[12]
[13]
[14]
[15]
[16]
[17]
[18]
[19]
[20]
[21]
[22]
[23]
[24]
[25]
[26]
[27]
[28]
[29]
[30]
[31]
[32]
[33]
[34]
[35]
[36]
[37]
[38]

[39]
[40]
[41]
[42]
[43]
[44]
[45]
[46]
[47]
[48]
[49]
[50]